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GENETIC PSYCHOLOGY MONOGRAPHS

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GENETIC PSYCHOLOGY MONOGRAPHS

MAY and JULY, 1926

A STUDY OF NATIO-RACIAL MENTAL DIFFERENCES*

BY

NATHANIEL D. MTTTRON HIRSCH

Research Fellow in Psychology
National Research Council

*Recommended by William McDougall and transmitted to the Editors
by Carl Murchison, March 30, 1926.

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GENETIC PSYCHOLOGY
MONOGRAPHS

MAY AND JULY 1926

A STUDY OF
RACIAL MENTAL DIFFERENCES

BY THE REV. DR. J. M. G. H. H. H.

Author of "The Psychology of the Negro"

Published by the Harvard College Library
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ACKNOWLEDGMENTS

I wish to acknowledge the assistance and co-operation that I have received from more than two hundred Public School Teachers and Principals, whose school children were the subjects of this study. Without their aid in securing the nationality of both parents, the vocation of the fathers of these children, and numerous other details the study would have been greatly curtailed.

My deep thanks are also given to the five Superintendents of the Public Schools, who permitted the writer to carry on the experiment in their respective cities.*

To Professor Walter Dearborn, and to Drs. Edward Lincoln and Daniel Prescott I am indebted for special information concerning the use of and results from the Dearborn A and C Group Tests. Professor Rudolf Pintner very generously gave me some special information in regard to the Pintner-Cunningham Primary Mental Test.

Professor Carl Murchison suggested the division of the manuscript into two parts, and the arrangement of the chapters.

I am indebted to Mr. Alfred Starr for aid in the statistical treatment of the results, for many valuable criticisms, and for the reading of the proofs.

The constant aid and encouragement of my sister, Miss Goldie Hirsch, and of my brother Sidney Mttron Hirsch, permitted the study to be completed.

The entire experiment has been conducted under the supervision of Professor William McDougall, whose suggestions and guidance give the study any value that it may possess.

The study was undertaken while the author was a Fellow with the National Research Council.

NATHANIEL MTTRON HIRSCH.

April 28th, 1926.
Cambridge, Mass.

*By request of the Superintendents the names of four of these cities are not mentioned. The author has kept a record of the schools visited with the dates, and retains the test papers.

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1. The first part of the report deals with the general situation of the country and the progress of the work during the year. It is divided into two main sections: the first dealing with the general situation and the second with the progress of the work.

2. The second part of the report deals with the results of the work during the year. It is divided into three main sections: the first dealing with the results of the work in the field, the second with the results of the work in the laboratory, and the third with the results of the work in the office.

3. The third part of the report deals with the conclusions drawn from the work during the year. It is divided into two main sections: the first dealing with the conclusions drawn from the work in the field, and the second with the conclusions drawn from the work in the laboratory and the office.

4. The fourth part of the report deals with the recommendations made during the year. It is divided into two main sections: the first dealing with the recommendations made in the field, and the second with the recommendations made in the laboratory and the office.

5. The fifth part of the report deals with the summary of the work during the year. It is divided into two main sections: the first dealing with the summary of the work in the field, and the second with the summary of the work in the laboratory and the office.

INTRODUCTION

Perhaps no scientific problem is of greater importance than the question of innate Racial and National psychological differences; but in hardly any other scientific subject have conclusions been so confidently stated without sufficient basis of exact investigation and observation. Emotional bias hurries the writer on to form conclusions without pausing to gather data by methods now available.

No problem has been more ardently discussed by laymen than the one in question. The consciousness of blood kinship is abroad in the world. It is one of the roots of that spirit of Nationalism which again swept over Europe recently, and which overrode economic and utilitarian considerations. The group consciousness of the Greeks, Italians, Poles, Magyars, Serbs, Roumanians, Bulgars, Armenians, Turks, Finns, as well as of the great nations, is a phenomenon the politicians did not originate; indeed it often interferes with their limited and selfish ends.

The American nation cannot refuse to be vitally interested in the principle of nationalism arising as it largely does from a group consciousness founded upon blood affinity. As Lord Bryce puts it, "Race consciousness sprang into life and became the core of Nationality." The American nation is inherently interested in the phenomenon of Nationalism, for by consequence of unrestricted immigration for many years it now harbors large numbers of persons of the most diverse nationalities. The presence within the nation of these elements of many diverse nationalities engenders many social and political problems which are intimately bound up with the underlying biological problems; namely, what are the capacities, the differences, the affinities, etc., of the more than twenty nationalities in our midst?

The present experimental study is in a limited fashion an attempt to learn something about the mental capacity and an-

thropomorphic characteristics of some of these nationalities. The subjects of the study were, with two exceptions (a group of white American children and a group of Afro-American children), all American-born children both of whose parents were foreign-born persons of the same nationality. The study thus in a way continues the work of Professor Brigham's volume "A Study of American Intelligence," for all his subjects were immigrants. But our experimental data also include, besides results from mental testing, results from educational tests, anthropomorphic data, and information bearing upon the relation of vocation and degree of intelligence.

In chapters X, XI and XII an hypothesis with certain corollaries is developed. This hypothesis was arrived at from the results of the experimental data; and was only formulated after the experimental and statistical work had been completed. The hypothesis in no way expresses a preconception of the author, and seems to be a fair and proper interpretation of the data adduced.

The remaining portion of this introduction predicates briefly some of the results from other experimental work upon Racial and National psychological differences. Chapters I, II and III give the background of the subjects tested, together with the nature of the tests and their validity. Chapter IV gives the results of the mental tests, while Chapter V gives certain criticisms of these results. Chapter VI contains data bearing on the relation of vocation and degree of intelligence. Chapter VII states the achievements that some of the national groups secured upon educational tests, while Chapter VIII presents anthropometric data secured from several thousand subjects. In chapter IX there is a comparison of some of our National group differences with some of the results found in "A Study of American Intelligence." A criticism of Professor Brigham's volume is also made.

A SUMMARY OF SOME OF THE RESULTS AND CONCLUSIONS OF OTHER STUDIES ON NATIONAL AND RACIAL DIFFERENCES

In order to give a proper setting for our study it is well to review briefly some of the results that have been attained in studies of Racial and National differences.

Professor Ferguson has found that negro children are definitely inferior in general intelligence to white children; dividing his negro testees into four groups, according to the depth of coloration, and proceeding on the hypothesis that the depth of coloration was an index of the proportion of white blood, he concluded that "in the more intellectual tests, success increased with the proportion of white blood."

Professor Pressey and Mr. G. F. Teter, examining colored and white school children, of the same ages and in schools from the same area, found that "The colored children of a given age average at about the average for white children (in the same city) two years younger."

Professor Hunter,* in comparing the intellectual capacity of white children with Indians of full-blood, of one-quarter, one-half and three-quarters white blood, found that there is a considerable difference between the mental capacities of the white children and the full-blooded Indians, the difference decreasing in proportion to the amount of white blood in the testees. Professor Hunter believes that these mental differences are probably racial.

Mr. K. T. Waugh,** in testing Chinese, American and Hindu students, found that though the Hindu students equalled or excelled the Chinese and American students in

*Psychological Bulletin 1921.

**Report made to the Psychological Association, December, 1920.

tests that involved memory and association, they were very inferior to Chinese and American students in tests which measured powers of concentration. Although these tests were given to too small numbers of students upon which to base definite conclusions, the results confirm a fact that is generally accepted; that is, the Hindus are relatively weak in concentrated effort, although intellectually they are quick and brilliant.

Professor S. D. Porteus, conducting his work in the Hawaiian Islands, has found by the use of a battery of tests and measurements, that the Japanese are far superior to the Chinese and Portuguese in regard to persistency of effort, mental alertness, and power to inhibit emotional disturbances; and they have less learning capacity than the Chinese, but more than the Portuguese.

Professor Porteus* discovered that the Japanese had a smaller proportion of criminals than the other sub-races of the islands, which came in the following order in regard to proportion of criminals:- Portuguese, Chinese, Filipinos, Hawaiians and natives of Porto Rico. The percentage of mental retardation for these sub-races found them in the following ascending order:- Japanese, Chinese, Filipinos, Hawaiians, Portuguese and natives of Porto Rico.

Turning now to the differences, especially the intellectual differences *within* the white race, Professor Terman's many studies demonstrate an intellectual inferiority for Spanish-Mexican, Portuguese, and Italian children on the one hand as compared with the North European, Hebrew, and American children on the other. His studies indicate that these differences are largely independent of educational status, and are to be attributed to innate racial differences.

*Journal of Applied Psychology, 1924.

Professor R. Pintner, while not denying National and Racial differences in intelligence, believes that these differences are less than those found by verbal group tests or from any revision of the Binet-Simon test. Professor Pintner,* gave children from English and non-English speaking homes both the revised Binet-Simon test and his own non-verbal test. He found that although the group of children from non-English speaking homes were definitely inferior to the children of English-speaking homes on both tests, their inferiority on the non-verbal Pintner test was somewhat less than on the Binet test. Professor Pintner states that "from these results, we may conclude that children who hear foreign languages at home, test lower as a rule when given the revision of the Binet test than when given tests which require a minimum knowledge of English."

The Dickson-Thompson Study in California** presents excellent evidence that the intelligence of the Spanish-Mexican, the Portuguese and the South Italian sub-races, is not only very low, about .8 of the intelligence of children of North European descent, but does not improve through further education, for most of the original testees who were retested four years later showed lower I. Q. averages than on their first testing when they were in lower school grades.

Professor Kimball Young has discovered that the Spanish-Mexicans and the Portuguese compare even less favorably with the Americans in intelligence than the South Italians on Army Alpha tests, when applied to 12-year-old testees. On Beta tests, which were unfair to many superior 12-year-old

*Journal of Educational Psychology, 1922.

**In this connection The Psychological Monograph of Mr. M. L. Darsie entitled "The Mental Capacity of American-born Japanese Children" should be noted.

American children, the differences were less distinct between the American and non-American group, but nevertheless remained significant. Professor Young's work thus supports, in the main, the contention of Professor Pintner, previously quoted.

Professor Carl Brigham, in "A Study of American Intelligence" has collected the most weighty evidence yet contributed on National and Racial (negro versus white) mental differences, for his results are based upon thousands instead of upon hundreds of cases. In this admirable volume, from among the data that are presented, two pieces of data and one hypothesis are especially relevant to our work. The two pieces of data are:- (1) There are significant mental differences among the Nationalities sending immigrants to the United States from 1898-1917. (2) The immigrants coming to this country in each five-year period succeeding 1898-1902, were of progressively lower level of intelligence.

The hypothesis is :- The National differences in intelligence and the differences in intelligence of the groups based on different lengths of residence in the United States are both explained on the hypothesis of Race; the Nationalities of superior intelligence are largely Nordic, the Nationalities of lower intelligence are composed largely of Alpine and Mediterranean blood. Likewise, the decline in each five-year group is largely due to a lessening of the proportion of Nordic blood and an increase in the proportion of non-Nordic blood.

The present volume will (1) present data that supports Professor Brigham's first section of data. (2) It will demonstrate that his second set of data cannot be explained at all by a decrease in the proportion of Nordics coming to this country in each five-year period succeeding 1898-1902, but must be explained by three factors, (a) a slight language

handicap that is greater in each succeeding five-year period, (b) a poorer sample of the population of the European countries emigrating to America, (c) a change in the proportions of immigrants coming from certain Nationalities. (3) Lastly, this present volume will attempt to show that the National differences in intelligence are not Racial differences, but are *Natio-Racial* or sub-Racial differences, and that the anthropological concept of Nordics, Alpines, Mediterraneans, etc., is not a pragmatic or valid concept when applied to those mental, emotional and character differences that innately exist among individuals and groups. In the last two chapters the author essays to show that psychological attributes are Natio-Racial in extension and meaning and that although these mental attributes are heritable, they are subject to slow change due to (1) Natural Selection (2) Migrations and Inter-marriage (3) Mutations (4) Creativity of Geniuses (5) The possible inheritance of acquired characteristics.*

*Mr. G. A. Feingold, *Journal of Educational Psychology* 1924, in a study of American-born children of several of the Army National groups, has found that the mental differences among the High School representatives of these foreign groups are insignificant and also that the mental differences between the non-English and the Anglo-Saxons are of no importance. Our own study of these same Nationalities gives opposite results. Perhaps this difference can be largely explained by the fact that Mr. Feingold's testees were High School Freshmen, Juniors, and Seniors, while the great bulk of our testees were children from the 1st, through the 7th grade, a truer representation of the National groups in question.

PART I

EXPERIMENTAL DATA, PROCEDURE AND RESULTS

CHAPTER I

THE SELECTION OF OUR SUBJECTS

Perhaps no other state in the United States, except New York, affords so excellent a sample of our immigration during the last 27 years as Massachusetts. In this state immigrants from all parts of Europe live in considerable numbers, doing similar work and often living in neighborhoods where several of the immigrant groups interpenetrate, living side by side.

Of the 5504* children tested, all but 521 children were attending the Public Schools of four Massachusetts mill centers. These four cities were selected not solely because they contained many groups of immigrants in large numbers but also because the cities were similar in two important respects—they were factory cities, and their *Public School* systems were equally excellent.

Schools were selected in these cities where the interpenetration of American-born children of foreign parentage was most pronounced. Roughly speaking, ninety per cent of the children from these four cities were taken from schools where there were present at least four nationalities represented by considerable numbers of children. An upper limit where eleven nationalities were present was reached in one school.

The remaining 521 children were selected in the following places:- (a) 449 negro children were found in Negro Public Schools, in the city of Nashville, Tenn. These schools were chosen by the Superintendent of the City Schools as fairly representing the entire colored population of that city. (b) 37 Russian children were tested at an Orthodox Church

*Over 7000 children were tested, but more than 1500 tests were not used because this number of children were of mixed nationalities, i. e., Greek-Italian, Russian-Polish, etc.

School. However, during the week-days, these children were attending the Public Schools of a Massachusetts city. (c) 35 Greek children were tested at a Greek Orthodox Church school. These children also were attending the public schools regularly.

With the exception of these children, all of the others lived in four similar cities, dwelling in the same neighborhood or very similar neighborhoods. They attended schools where the same or very similar curricula existed, where the educational atmosphere and personnel were similar; and not alone the *kind* of training but the *amount* of training was equal. That is, the various national groups were all enrolled in a graded school system where still on the whole, promotion is judged largely on the basis of time spent in a grade.

The chronological ages of the 5504 pupils ranged from 5 years, 6 months to 18 years; but more than 97% of the ages fell between 6 yrs. 0 mos. and 15 yrs. 0 mos.

The school grades of these children ranged from the first, through the ninth grade. However, 96.6% of the children's grades ranged from the first through the eighth, and 87.4% of the testees' grades were found from the first through the seventh grade.

All of the children were American-born of foreign-born parentage (with the exception of the white and negro American groups); that is, (with the two exceptions noted) all of our testees are first generation Americans, using, and educated by the English language. Obviously, if language were a retarding factor in the testing of many of the immigrant groups analyzed in "A Study of American Intelligence," it would be less so to the children of immigrants, born in an American environment, and hearing and using English daily in school, in the playground and at work.

But more important than equality as to language is the similarity of the emotional attitude of our testees to thoroughly Americanized testees. An immigrant's group rating *might* have been affected by factors other than linguistic considerations. Timidness, self-consciousness, and inferiority complex as well as resentment, fear and disinterestedness might have played some role in the total results.

But our testees were all "Americanized," feeling that they were as good as the next fellow, and unconscious of any national or racial animosity. Furthermore, they were nearly all interested in taking "the games and puzzles." All children took them voluntarily; no coercion was applied. In four cases, individuals were excused from taking the tests when they did not wish to do so. All the testing took place in a civilian atmosphere rather than under military conditions.

All of the testees were *still* in school. Among criticisms that have been made upon the Army psychological test work is the fact that not only were the Army testees divided into literate and illiterate groups, but that in the literate group men had been out of school varying lengths of time—from 0 to 20 years. If intelligence tests are at all influenced by "school set" our groups are influenced in equal measure.

The tests were given by one person, the writer, (with the exception of 6 classes enrolling less than 200 children, who were tested by a second person). All of the tests were corrected by one person, an assistant in the Harvard School of Education.

The tests were given during the regular school hours, in the school buildings. Children were tested by school grades, the numbers ranging from 15 to 60 at one time, with the average group consisting of about 30 pupils. All of our subjects

were tested between December 20th, 1924, and May 25th, 1925.

It is worth repeating that the attitude of the testees toward the tests was not one of "examinations" but of "games and puzzles."

In the next chapter we shall discuss another advantage we believe this experiment possesses in contrast with the Army examinations—the time factor. Here it is mentioned merely to list some of the assets of this experiment.

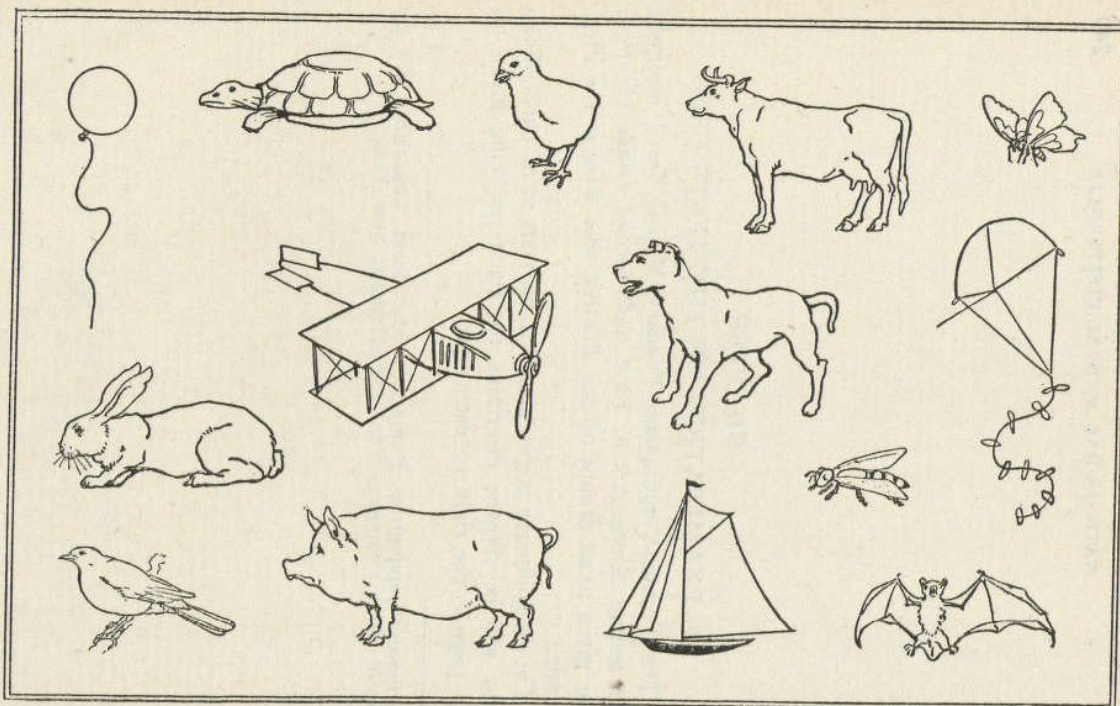
CHAPTER II

AN EXAMINATION OF THE TESTS USED

The Pintner-Cunningham Primary Mental Test,¹ designed for testing Kindergarten, First and Second Grade children, was given to all groups of our children who were in the First Grade.

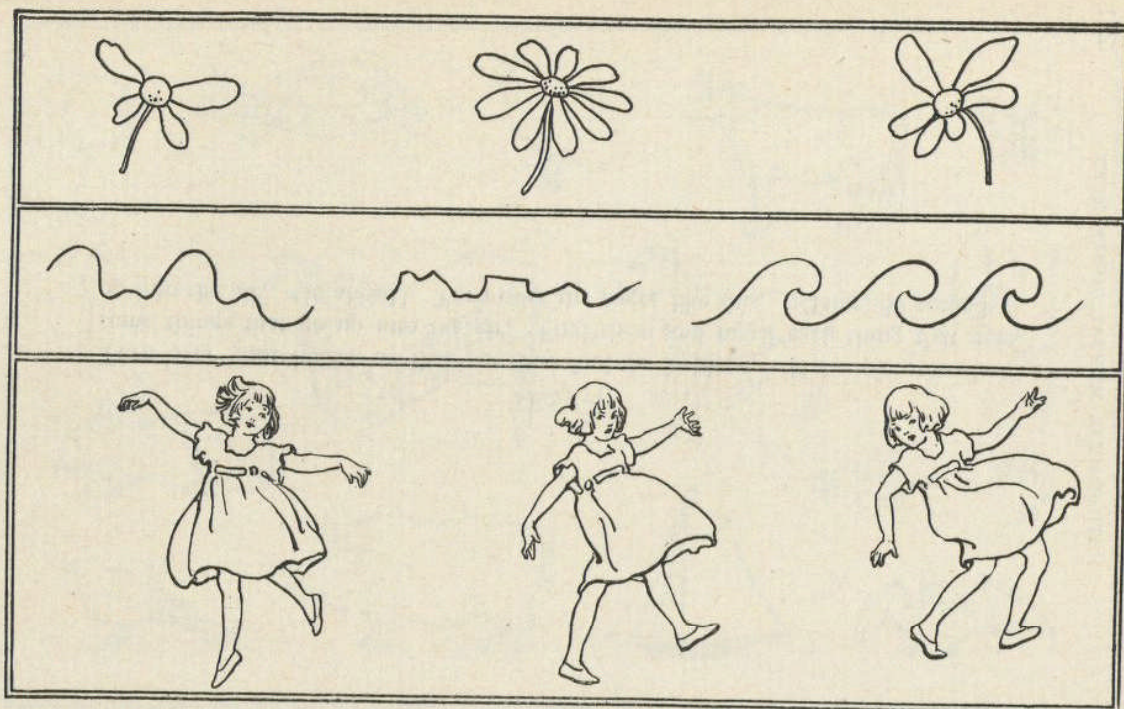
On the following pages, plates of the tests or of parts of the tests will be shown; directions for the tests being given on the page to the right of each plate.

¹Pintner-Cunningham Primary Mental Tests, Copyright 1923 by World Book Company, Yonkers-on-Hudson, New York.



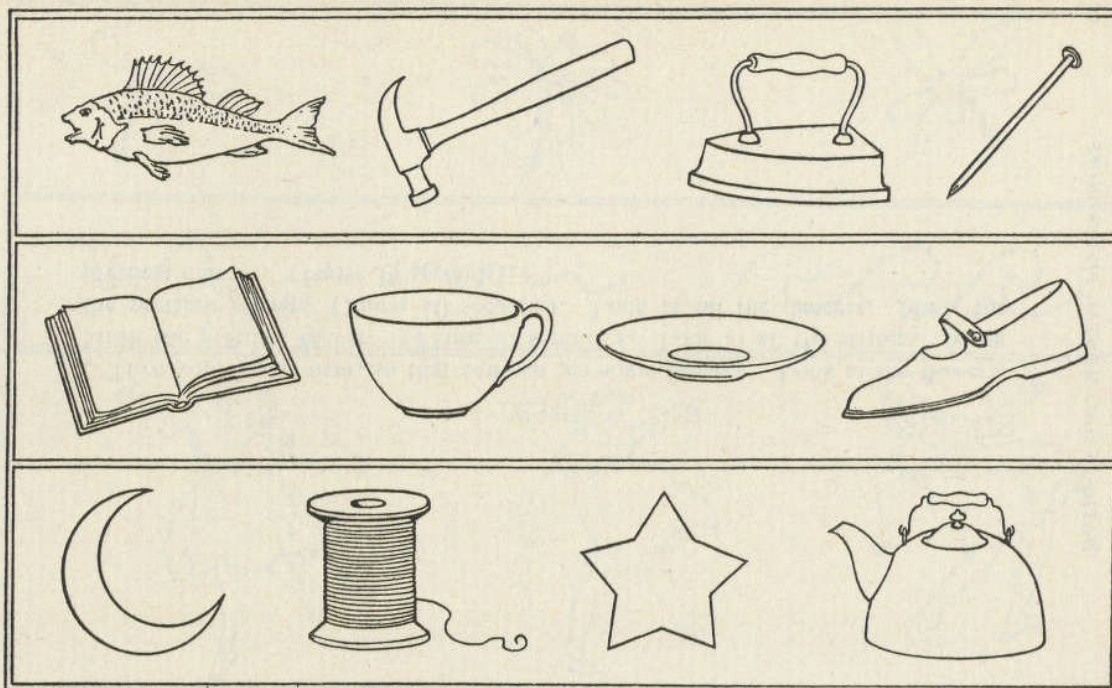
TEST I

Turn over your books, so that you can find an airplane. These pictures show some things that go up into the air. Find them and mark each thing that goes up into the air. Go ahead! Turn over the pages like this. (Time, 30 seconds).



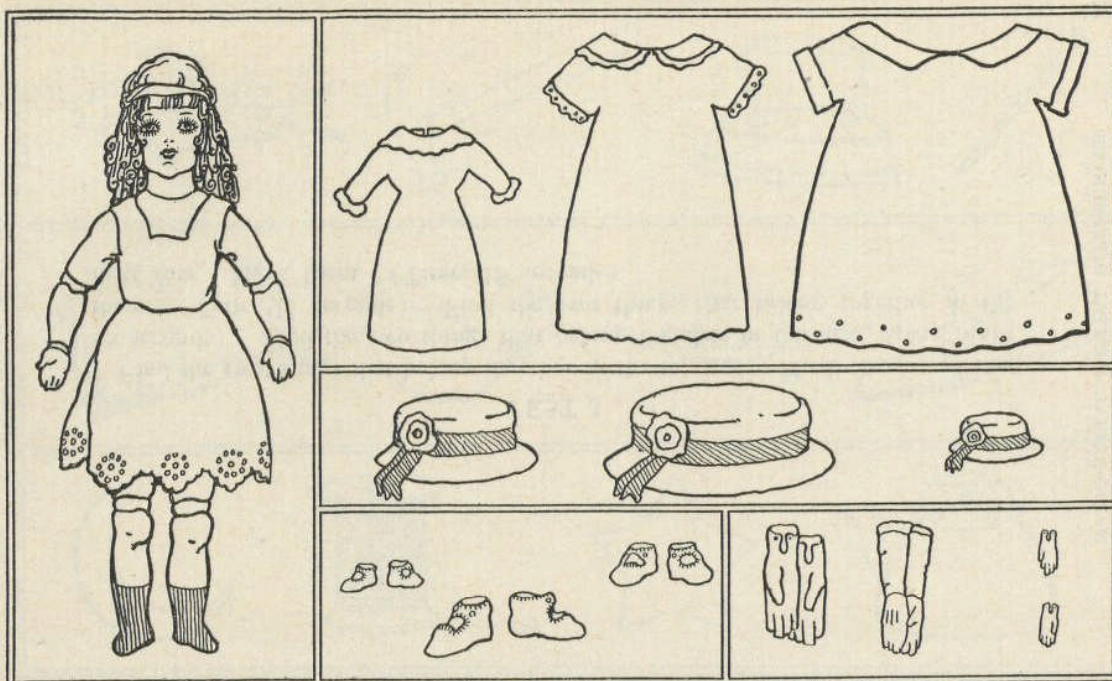
TEST 2

Turn your books over, so that you can see some flowers. Look at the flowers. Mark the prettiest flower. (Pause 10 seconds). Look at all the strings. Mark the prettiest string. (Pause 10 seconds). Look at all the dancers. Mark the prettiest dancer. (Pause 10 seconds).



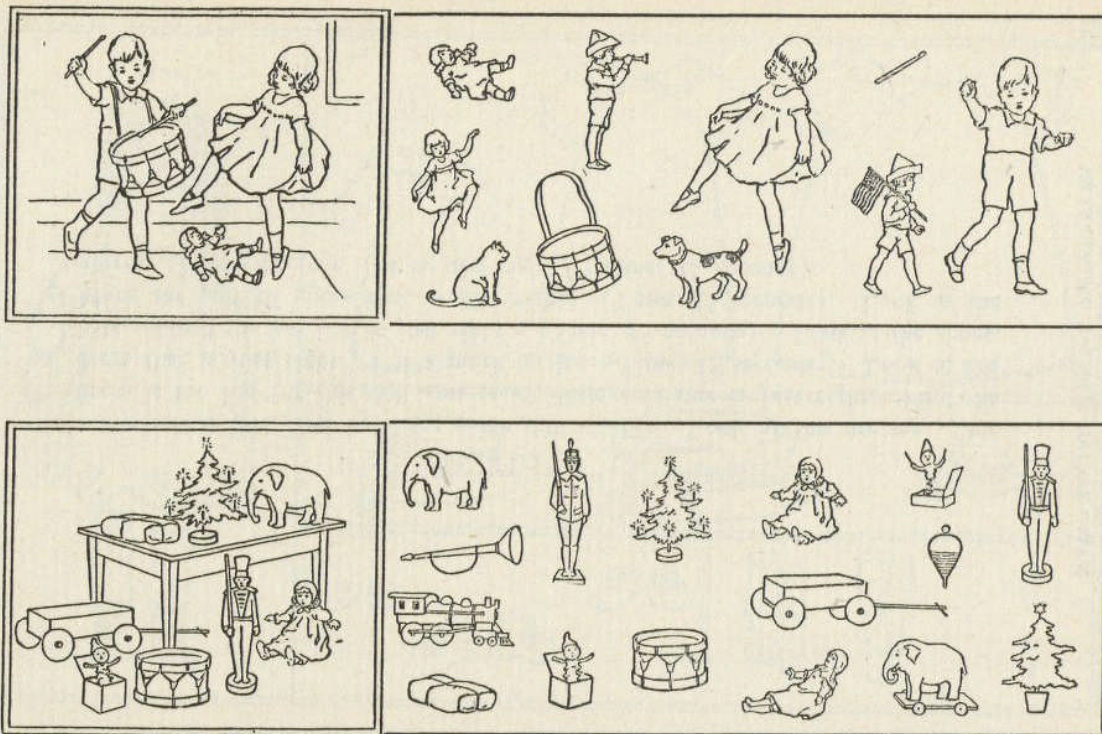
TEST 3

Find the two things that belong together in the top row. Mark them. (Time, 15 seconds). Find the two things that belong together in the next row. Mark them. (Time, 15 seconds). Find the two things that belong together in the next row. Mark them. (Time, 15 seconds).



TEST 4

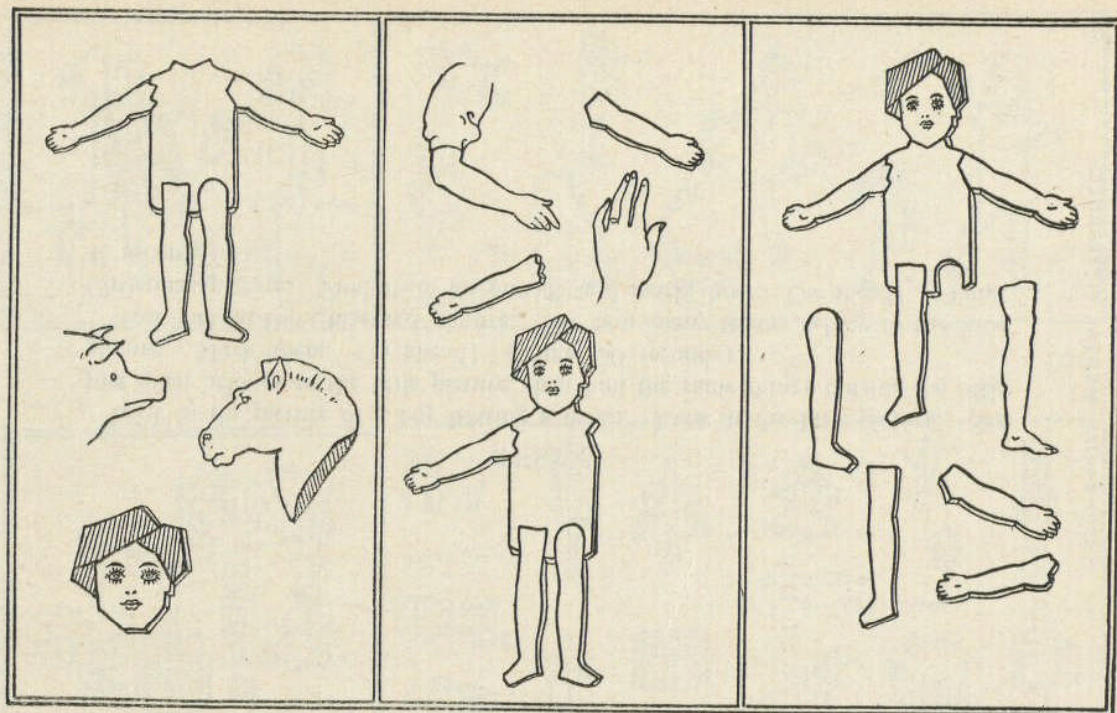
Here is a doll, and here are some doll clothes. Look at the dresses. One dress is too big for this doll, one is too little, and one is just right. Find the dress that is just right. Put a mark on it. (Time, 15 seconds). Look at the hats. Mark the hat that is just right. (Time, 15 seconds). Look at the shoes. Mark the pair of shoes that is just right. (Time, 15 seconds). Look at the gloves. Mark the pair that is just right. (Time, 15 seconds).



TEST 5

Look at the picture of a boy beating a drum. Look at the little picture. See just what belongs to the little picture, then find the same things outside the little picture. Mark them. Go ahead! (Time, 30 seconds).

Now look at the Christmas picture. See how many things belong to the little Christmas picture. Find them all outside and mark them. Go ahead! (Time, 45 seconds).

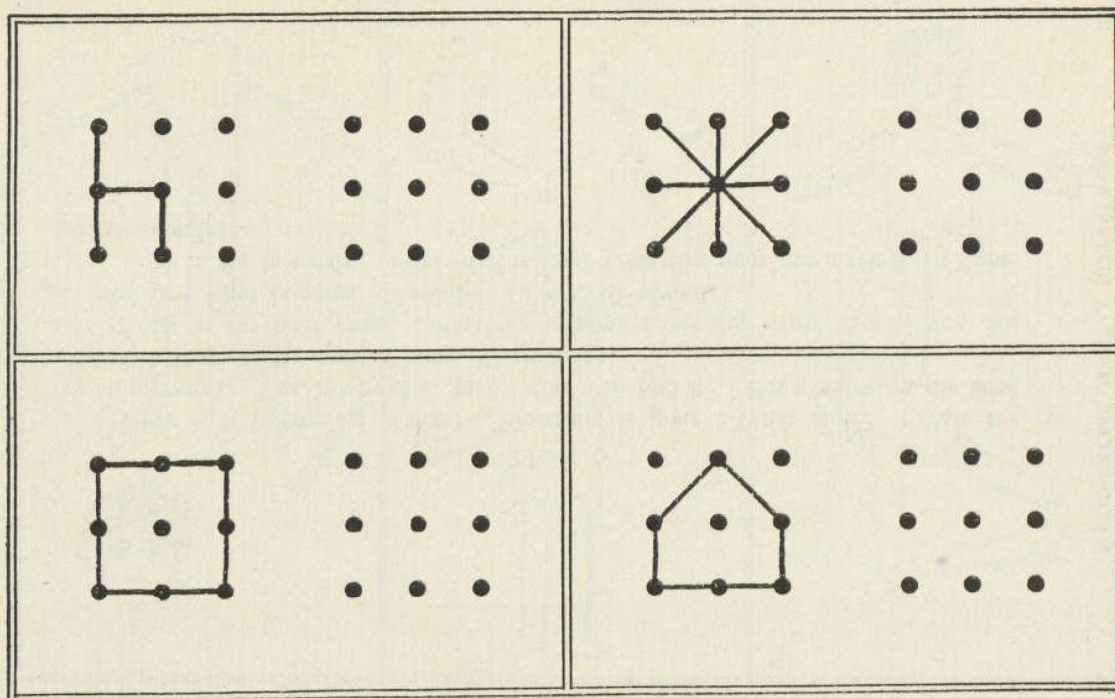


TEST 6

Here is a picture of a man. Something is gone. What is it? (Wait for an answer). Yes, his head is gone. Can you find it? Put a mark on the head that belongs to the man. (Time, 10 seconds).

Look at the next man. Something is gone from this man. See if you can find just what is gone. Mark it. (Time, 10 seconds).

Look at the last man. Find what is gone from this man and mark it. (Time, 10 seconds).



TEST 7

We are going to draw some pictures just like the pictures on this page. Do you see how the chair is made? The lines are drawn to the dots. Here are some dots to make another chair just like this one. Draw a chair here. (Indicate dots opposite chair). Make it exactly like this one. (No time limit).

Now look at the star. See just how it is drawn. In these dots make another one just like it. (Time, 15 seconds).

Now look at the square and the house. Draw a square here and a house here. Go ahead! (Time, 30 seconds for both).

Revised Edition

Score (to be entered by teacher)

Gen. Exam. A.....

" " B.....

Total.....

Date of Pupil's Birthday:

Month..... Day..... Year.....

Games and Picture Puzzles

Name

Age Boy or Girl

Grade Room

School

Town or City..... State.....

Date

Revised Edition[The Dearborn Group Tests of Intelligence
Series IGeneral Examinations A and B
For Grades I-IIICopyright 1920, by WALTER F. DEARBORN
Copyright 1921, by WALTER F. DEARBORNPublished by
J. B. LIPPINCOTT COMPANY
Philadelphia, Penna.

The Dearborn "A" test was given to all the groups of children who were in the Second and Third Grades. The succeeding pages present plates of this test. The directions for each of the fifteen parts of the Dearborn "A" test are given. On only parts 16 and 17 are time limits set. "On the remaining tests there are no definite time limits, the intention being to give every child time to do what he is able to do. Experience has shown, however, that when about three-quarters of a class have finished a test, the other quarter will not add appreciably to their scores by a further extension of the time. Hence, in order not to prolong unduly the time for testing, the following rule should be followed: *except where a definite time limit is set, proceed to the next test or "game" when approximately three-quarters of the class have finished.*" (From the Dearborn Manual of Directions).

Directions for giving Dearborn Test A¹

1. How many see the ball and the box at the top of the page? In the space to the side right here (pointing to space), draw me another box and then put the ball in it. Draw them like this (examiner should illustrate on blackboard, or have square with circle in it already drawn on the blackboard before the test is given). Go!

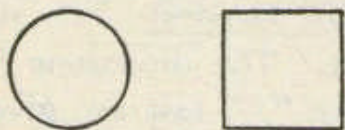
2. How many see the picture of the boy running? How many can draw a boy running after him? Draw him right here (indicating space to right of boy). How many see the cat? Now draw a dog running after the cat.

3. Who can find the picture of the watch? How many see the key? How many see the knife? Now I want you to listen carefully and not to write until I tell you to. "Pencils up"!

¹Published by J. B. Lippincott Company, Philadelphia, Pa.

1

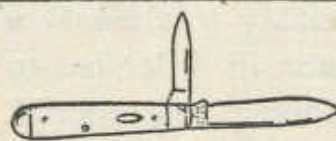
(Gen. Exam. A.)



2



3



4

1 2 3 4 5 6 7 8 9 10 11 12

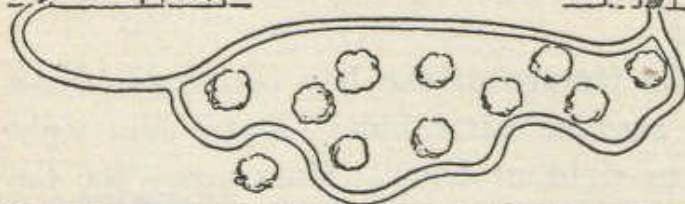
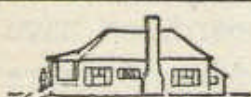
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6



7



8



(See that all children have their pencils up). Hold your pencils up until I tell you all the things to do, then I'll say "GO" and you may do them. I want you to make a box like this (illustrate on blackboard) about the watch, and a ring like this O around the key and an X like this through the knife. Remember (repeat): a box, etc. Draw all three. "Go."

4. Now look at the line of numbers right under the watch. I want you to find the number which tells you how old you are, and make a ring around it.

5. Now find the apple. Suppose you wanted to give me half the apple. Take your pencils and cut the apple so you could have half, and I could have half. Now make another apple and cut it in halves.

6. Now look at the shoe and the coal hod filled with coal and next to it the hairpin. I want you to draw two lines like this (X) through the one which you think would be heaviest to lift up, i. e., the shoe, the coal hod or the hairpin. Now draw a ring like this (O) through the lightest one of the three.

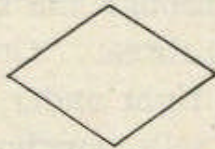
7. Here are the pictures of a house and a schoolhouse with two roads (streets in city) from the house to the school. Johnny lives in the house. Do you see him at the front door? He generally goes to school by the shorter road. Now I want you to draw me a line right IN the road that will take him to school the "quickest." "GO." (Pause). One day Johnny was almost late, and instead of going by the road he came right out of his back door and ran straight across to school. Show me with another line just how he went. "GO."

8. A boy had all these marbles in a box (pointing to picture). If he gave you half of them and kept half of them himself, show me how many you would have by drawing them right here (indicating space). (Pause). Now count how many

9



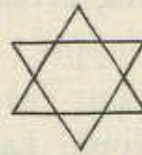
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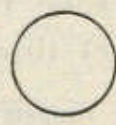
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12



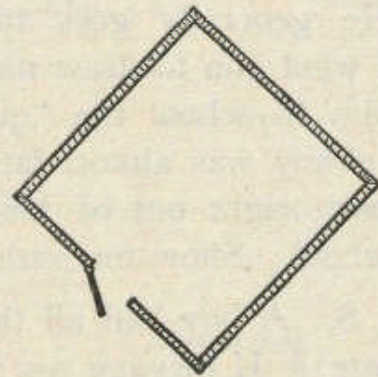
13



14



15



you would have and write the number in the box over here (pointing to the box). "GO."

NOW WE WILL ALL TURN THE PAPERS OVER

(Examiner should see that the pupils have the right page).

9. Do you see all these little sticks? I want you to draw right here (indicating space) all the sticks. "GO." (Pause). Have you made just as many as there are in the picture? Now count how many you made and write the number in the little box here at the side of the page (pointing to it). "GO."

10. This picture is called a diamond. I want you to draw one just like it right here beside it. (Pause). Now look at the diamond again. See if you can draw a still better one right next to your first one.

11. How many see the picture of the hand? Which is it, a right hand or a left hand? (Left). I want you to draw a right hand next to this one. "GO." (Pause). Now count how many fingers and thumbs there are in all on both hands. Write the answer in the little box here (pointing to it).

12. Here is a star. See if you can draw another star just like it right here (indicating space).

13. Now find the picture of the penny. What is the piece of money right under it? (25 cents or quarter). Now I want you to make some pennies by marking 1 on all the rings which are of the same size as the penny. (Pause). Now we will make some quarters by marking two lines (illustrate on blackboard) on all the rings of the same size as the quarter. "GO." (Pause). Now count how many quarters you made. Write the answer in the box under the quarter. "Go." (Pause). Counting all the money that you made both pennies and quarters, think how much money you will have altogether. Write the answer in the large box here at the side of the page.

14. Now look at the stamps. Suppose you want to mail some picture post-cards and some letters which you have written. Can you find the right stamps to put on them? Put a ring (O) on all the stamps for the post-cards, and a big cross (X) on all the stamps for letters. "GO." (Pause). Now find how much it would cost to put on all the stamps. Write the answer in the box under the stamps. "GO."

15. How many see the big square field with a gate on the side (pointing to No. 15)? How many see the gate? Is it open or shut, (Open). "Pencils up." A lady lost her purse in this big field. Now suppose she offered you twenty-five cents to find it for her. It is in there somewhere and you will have to look carefully. Now take your pencils and start at the gate and draw a line to show me where you would go to hunt for the purse so as to be sure not to miss it. "GO."

NOW TURN OVER TO THE LAST PAGE

16. Have we all found the clocks? Now look at all the clocks in the first row and *think to yourself* what time each one says. (Examiner should pause for one minute).

(1) Find the clock which says three o'clock and mark "1" right above it. "GO." (Examiner should pause for only four or five seconds after each clock so as not to give time for copying).

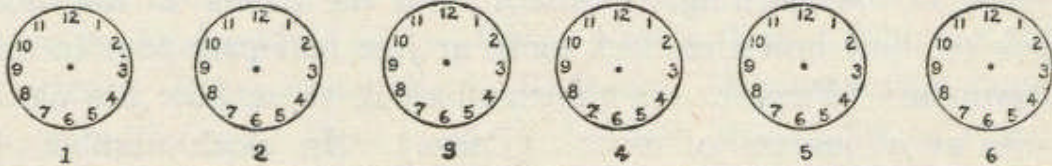
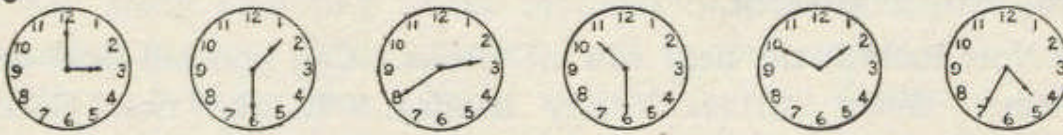
(2) Now find the clock which says half-past ten or ten thirty and mark 2 above it. "GO."

(3) Now find the clock which says half-past one or one-thirty and mark 3 above it. "GO."

(4) Now find the clock which says ten minutes to two and mark 4 above it. "GO."

(5) Now find the clock which says twenty-five minutes of five and mark 5 above it. "GO."

16



17



(6) Now find the clock which says twenty minutes to three and mark 6 above it. "GO."

Now look at the next row of clocks. Can you tell time by them? Why? (Haven't any hands). In the first clock draw in the hands so as to show how the clock looks at ten o'clock in the morning. (Pause). Put the hands on the next clock to show how the clock looks at just half-past four in the afternoon. (Pause). In the third clock show how the clock looks at a quarter of two. (Pause). In clock number 4, show how the clock looks when school lets out (or closes) in the morning, (or, if there is but one session, when it is time for recess). (Pause). In clock number 5, show how the clock looks when school lets out (or closes) in the afternoon. (Pause). In clock number 6, show how the clock looks at midnight.

17. Now we are going to play another game. Look at the boys in the first room. What is the first boy doing? This boy here (pointing to No. 1)? (Wait a moment for an answer). Yes! He is sitting down.

What is No. 2 doing (pointing to No. 2)? He is crawling or creeping.

What is No. 3 doing (pointing to No. 3)? He is standing or walking.

What is No. 4 doing (pointing to No. 4)? He is running.

What is No. 5 doing (pointing to No. 5)? He is jumping.

Now we are going to play the game this way: We will put a number 1 under each boy or animal we can find who is sitting, and a number 2 under each boy or animal who is crawling and a number 3 under each boy or animal who is standing and a number 4 under each boy or animal who is running, and a number 5 under each boy or animal who is jumping.

Now look at the boys in the next row. What is the first boy doing (pointing to the first boy in second line)? He is sitting down. What number shall be put under him? (1) Write 1 under him. What is the next boy doing (pointing to, etc.)? What number shall we put under him? (3) Write 3 under him. Is the next boy running? What number shall we put under him? (4) Write 4 under him. Who can find a rabbit? What is it doing? Running. What number shall we put under it? Yes! No. 4, because the rabbit is running. How many see the horse below the rabbit in the last row? He is standing on his hind legs. Write 3 under the horse to show that he is standing. Now put the right numbers under *all* the other boys and animals to show whether they are standing or sitting or running or jumping or crawling. Begin here in the first row (pointing). "GO." (After a short pause, say "when you have finished with the first row, do the next row." Repeat later for third and fourth rows, if pupils are seen finishing before the time is up. (Stop after exactly two minutes).

The Dearborn "C" test was given to all groups of children from the Fourth grade through the Ninth grade.

Directions for giving Dearborn Test C.¹

There are two rows of pictures. Each row of pictures *across* the page will tell a story if the pictures are arranged in the right order. We are going to look at the pictures and put numbers on them to show the order in which they should come to tell the story. Now look at the first row of pictures across the page. There are four pictures and they tell a story of a letter which a little girl wrote to a little boy. Do you see the picture of the *postman* delivering a letter, then a boy reading a letter, then a girl mailing a letter, and lastly, a girl writ-

¹Published by J. B. Lippincott Company, Philadelphia, Pa.

Revised Edition

Games and Puzzles

SERIES II—C

Name..... Boy or Girl.....

Age.....years Date of Birth:..... Month..... Day..... Year.....

Grade..... School.....

Place..... State.....

Date

Example A



Example B



Revised Edition
 The Dearborn Group Tests of Intelligence
 Series II
 General Examinations, C and D
 For Grades IV—XII
 GENERAL EXAMINATION C

Copyright 1920, by WALTER F. DEARBORN.
 Copyright 1922, by WALTER F. DEARBORN.

Published by
 J. B. LIPPINCOTT COMPANY
 Philadelphia, Penna.

Score

1.....

2.....

3.....

4.....

Total of C.....

5.....

6.....

7.....

Total of D.....

Total of C and D.....

M. A.

I. Q.

ing a letter? Now, which of the four pictures should come first in the story? (Pause). First, the little girl writes the letter, so that picture is marked number 1. Do you see the number 1 in the lower left-hand corner of the picture? Then she mails the letter, and so that picture is number 2. Next, the postman delivers the letter, so that is number 3. And then the boy gets the letter and reads it, so that picture is number 4.

Now look at this next row of pictures across the page. (Examiner should hold *copy of test before class* and point to the row across the page). These four pictures will also tell a story if we arrange them in the right order. *First*, look carefully at each picture. Now which of them should come first to tell the story? "Kettle on stove." Write a large number 1 in the *lower left-hand corner of the picture to show* that you know that this picture comes first in the story. Which is next? "Maid bringing in the tea." Write a large number 2, etc. (Follow the same procedure for pictures 3 and 4). Now you have the pictures in this row all numbered so that they tell a story.

Now turn this page over and you will find two pages of pictures. (Examiner should hold the pages up before the class and after making sure that all the pupils have the right pages, say "Pencils or Pens up). Now when I say "GO" I want you to look at each row of pictures, and write numbers on the pictures to show the order in which they should come in each row, *so that each row of pictures will tell a story*. Write the numbers in the lower left-hand corner of each picture. (Pointing). There are four pictures in each row on the first page and five pictures in each row on the second page. When you finish the *first* page, go on to the *next* page. Ready, "GO." (Examiner will need to *repeat* directions to go on to the sec-



1



2



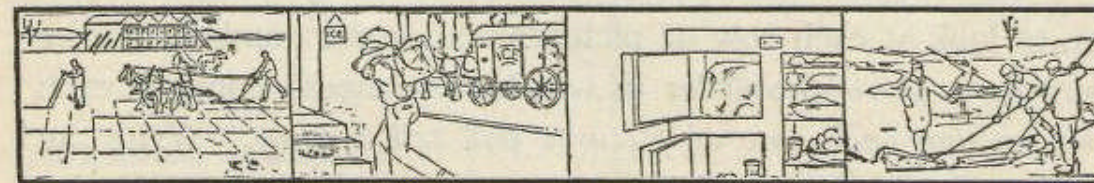
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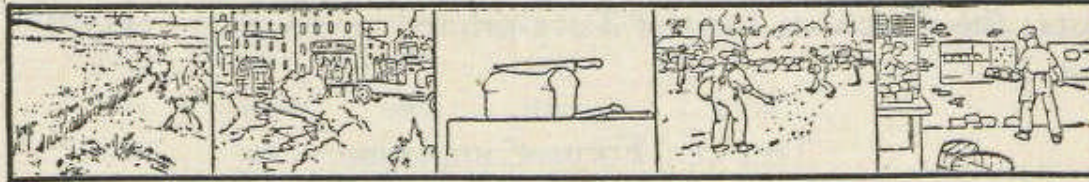


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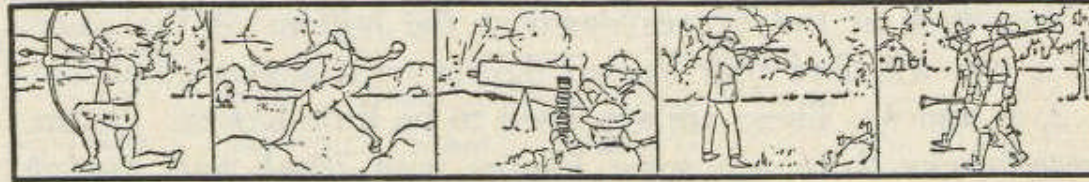
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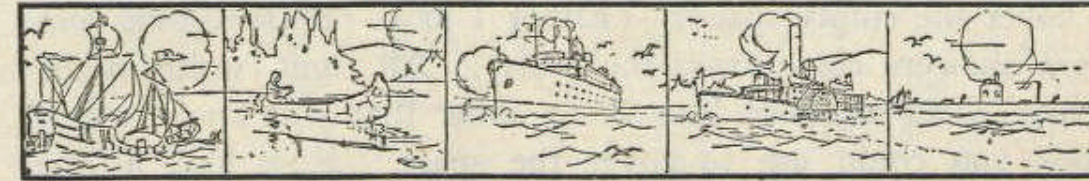
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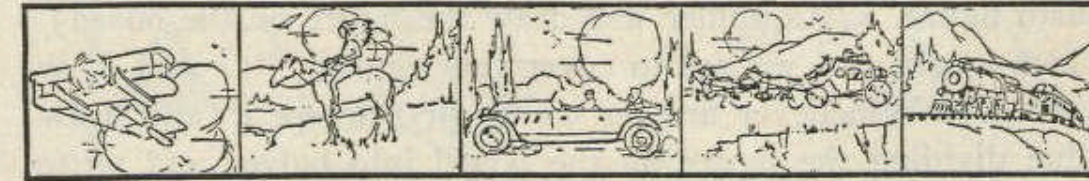
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13



14



15

ond page whenever he sees pupils stopping before time is called).

Allow 6 minutes. "Stop."

The directions for tests 2 and 4 are printed just above these tests; the directions for test 3 are printed on the page opposite test 3.

Test 3. Form Completion

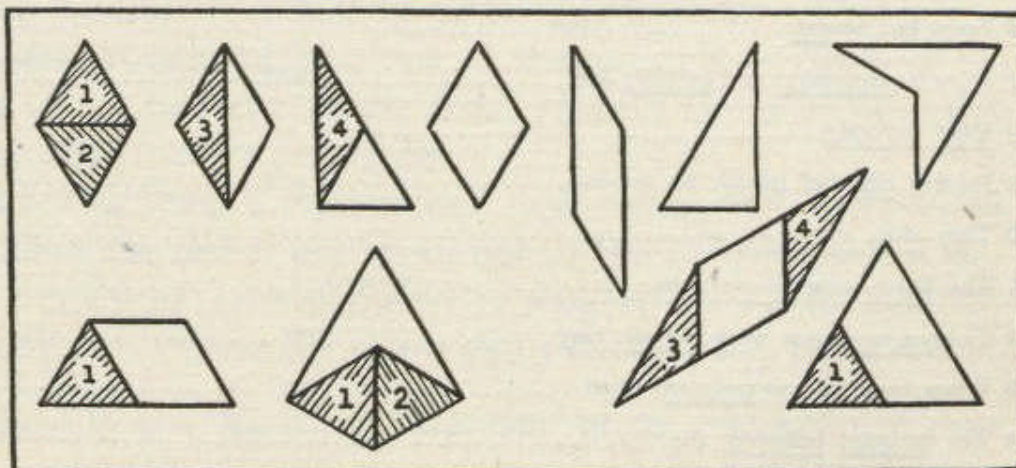
Now look at the figures down at the bottom of the page. First you will find four shaded figures or triangles numbered 1, 2, 3, and 4. These are supposed to be little blocks. Below these blocks there are some figures with *blank* and *shaded* spaces. The blank spaces in the figures are supposed to be empty places, and the shaded spaces are supposed to be covered with blocks. We want to show how the other blank spaces can be covered by using one or more of the four blocks. Now look at the first figure. It is already covered with blocks numbered 1 and 2. Look at the second figure. That is partly covered by blocks number 3. What other block can we put on it to cover it all up? Yes! Number 4. Number 3 has already been used, so we will have to use number 4. Put a figure 4 in the empty space to show that you could just cover the space with block number 4. Now, look at the next figure. Block number 4 is already on; what other block can we use to cover the empty space? (Either 1 or 2. Be sure that *both* these answers come from the class). All right, write in the figure, *either* number 1 or 2, to show that you know which block you could use to cover the space. Now look at the fourth figure. (Examiner will draw the figure on the board). Which blocks can we use to cover this figure? "(1 and 2, or 3 and 4." Whichever answer comes first accept it, and draw a line dividing the figure on the board into halves and write

4

- (2) DIRECTIONS:—Number the following words to show their proper order. Put the numbers directly under the words as in the following example A.

Example A.		dinner 2	supper 3	breakfast 1					A	
Example B.		fruit	flower	seed	plant				B	
1	syrup	cane	candy	sugar						1
2	noon	sunrise	night	afternoon	sunset					2
3	house	logs	lumber	forest						3
4	Jan.	Aug.	Feb.	June	April	Mar.	Sept.	May	July	4
5	harvesting	planting		ploughing	cultivating					5
6	flour	wheat	bread	dough	toast					6
7	dress	silkworm		cocoon	satin					7
8	linen,	writing paper,		flax,	linen rags,	pulp,	letter			8
9	weaving,	wool,	carding,	yarn,	cloth,	spinning,	garment			9
10	standing	running		sitting	crawling	lying				10
11	sinking ship,	fog,		rescue,	life saving boats,		collision			11
12	physician,	football game,		recovery,	bandage,	broken leg,		tackle		12
13	mining	coining		prospecting	money	refining				13
14	convention	election		voting	nomination	inauguration		campaign		14
15	armistice,	battles,	declaration of war,		peace conference,	recruiting,		victory		15

(3)



c.

- (4) DIRECTIONS. One or more words have been left out of the following sentences. Complete each sentence by writing in blank space a word which means just the opposite of the word which is underlined. Where there are two blank spaces, each word added must be the opposite of one of the underlined words. Write only one word in each blank.

EXAMPLES. A. Joe had two dogs, a big dog and a dog.

B. The sun rises in the east and in the

-
- | | |
|--|----|
| 1 We had <u>hot</u> summer and a winter. | 1 |
| 2 The <u>right</u> arm is usually stronger than the arm. | 2 |
| 3 He hunted <u>high</u> and for his hat. | 3 |
| 4 A lady her purse, and a little girl <u>found</u> it. | 4 |
| 5 The man wore a <u>new</u> hat and an coat. | 5 |
| 6 A lady helped an <u>old</u> man across the street. | 6 |
| 7 The <u>beginning</u> of the story was better than the | 7 |
| 8 John was <u>sick</u> last week but now he is | 8 |
| 9 people are usually heavier than <u>short</u> people. | 9 |
| 10 In the he intends to do better than in the <u>past</u> . | 10 |
| 11 Generals <u>command</u> ; soldiers | 11 |
| 12 The lake is <u>deep</u> , but the river is | 12 |
| 13 He had rather than <u>borrow</u> . | 13 |
| 14 Some thought him; others, <u>guilty</u> . | 14 |
| 15 <u>Few</u> would note his, but his <u>absence</u> . | 15 |
| 16 <u>Poor</u> , but <u>honest</u> ;, but | 16 |
| 17 John is <u>economical</u> and <u>careful</u> ; Joe, and | 17 |
| 18 <u>Heat</u> <u>expands</u> ; | 18 |
| 19 He was <u>rich</u> and <u>proud</u> ; his servant and | 19 |
| 20 They <u>often</u> <u>succeeded</u> , and | 20 |
| 21 The <u>latter</u> were <u>inferior</u> ; the were | 21 |
| 22 The <u>younger</u> men were <u>radical</u> ; the were | 22 |
| 23 When <u>tired</u> he was <u>taciturn</u> ; when | 23 |
| 24 The <u>ignorant</u> <u>believed</u> ; the | 24 |

in the proper numbers). How else could the figure be covered? (Also illustrate on board by drawing line and entering proper numbers). All right, draw in *one* of the lines and write in the proper numbers to show which way you *want* to cover it. "Pens or Pencils up." Cover all the spaces that are left. Draw in the lines just as we did on the board *and* put in the numbers to show which blocks you use. There is *one* other direction: Do not use any block *twice* in the same figure. Ready, "GO."

Allow 2 minutes. "Stop."

Summary of Language and Time elements as factors in the final results upon the three tests utilized.

The Pintner-Cunningham test, in all of its parts, is a non-verbal test. "No knowledge of numbers, letters, words or writing is pre-supposed.*" Numbers, letters and words, in the First grade tend to make a test a measure of school achievement rather than of native ability. The marking of pictures, however, requires no scholastic training; furthermore, pictures are a subject matter that universally "attract and hold the attention of each child. This test has been designed with these particular requisites in mind."

The Dearborn A test is largely non-verbal. The use of numbers is required in a few of the tests but no reading element enters into any of the tests. Native ability is measured rather than verbal knowledge.

The Dearborn C test is half non-verbal and half verbal. But since the test is not given before the Fourth grade a certain amount of literacy should be attained by all children taking this test. After the Third and Fourth grade verbal intelli-

*Found in the "Manual of Directions" of the Pintner-Cunningham test.

gence tests are as adequate and as fair measuring instruments as non-verbal tests.

The time allowances on all three tests were fixed by the authors so as to avoid making the tests "speed tests."

The time limits were fixed on the Pintner-Cunningham test "during the experimental work in order to allow practically 100% of the children to finish whatever they could do on the test." My own observations confirm Professor Pintner's statement. Fully 80% of the children observed had stopped working before time was called on a test or upon part of a test. The test is in no sense a speed test.

Both of the Dearborn tests were so standardized as to time limits that pupils would have time enough in each test to do all the items that they are able to do. Quoting from Dr. Lincoln, one of the associates of the author of these tests, "the time limits are so long that any increase would not bring about any increase in scores for a majority of the pupils. I should say that 75 to 90% of the pupils found the time long enough to do all that they are able to do, and I am inclined to believe that the higher figure is more nearly correct than the lower."

CHAPTER III

TESTING THE TESTS

It is necessary to check the mental tests with outside standards. Even if the tests minimized the time factor, contained new linguistic obstacles, showed discriminative capacity, and gave normal score distributions, they might not be measuring intelligence. In other words, the tests might be unsatisfactory because what they measure might have no significance, no correlational nexus with achievement, vocation or desirable traits. We must then compare the I. Q. results from the tests with other criteria.

Professor Pintner has found that his test has a correlation of $+.82$ with the Stanford revision of the Binet-Simon test in the First grade, and from $+.55$ to $+.71$ correlation with this test when used on kindergarten children. With teachers' ranking Professor Pintner has found a $+.66$ correlation upon kindergarten children, a $+.78$ upon first grade children and a $+.64$ upon second grade children.

Turning now to our own investigation on the correlation of the Pintner-Cunningham test results with teachers' estimates of children's school work, using the Spearman rank correlation formula, we found:

- (1) A correlation of $+.64$ on 28 children in a first grade.
- (2) A correlation of $+.71$ on 22 children in a first grade.

The I. Q. results from the Dearborn C test were correlated with teachers' estimate of children's school work in four sixth grade rooms, in two fifth grade rooms and in one fourth grade room, on 212 children in all. The range of the correlations was from $+.54$ to $+.82$.

In another large school comprising grades from the first through the sixth, teachers classified their children into four

groups; we then arbitrarily divided the I. Q. scale into four divisions, as is shown below:-

School divisions	I. Q. divisions
E = excellent school work	= 111 up
G = good school work	= 90-110
F = fair school work	= 70- 89
P = poor school work	= 69 down

A complete correspondence is an E for 111 up.
 a G for 90-110.
 an F for 70- 89.
 a P for 69 down.

A difference of 1 rating is an E for an I. Q. of 90-110, or a P for an I. Q. rating of 70-89, etc.

A difference of 2 ratings is an E for an I. Q. of 70-89, or a P for an I. Q. of 90-100, or an F for an I. Q. of 111, etc.

A difference of 3 ratings is an E for an I. Q. of 69 or less, or a P for an I. Q. of 111 or more.

We shall present the correspondences by grades:

First grades, 53 children.

Complete correspondence in 32 cases = 60%.

A difference of 1 rating in 17 cases.

A difference of 2 ratings in 4 cases.

A difference of 3 ratings in 0 cases.

Second grades, 63 children.

Complete correspondence in 33 cases = 52% +.

A difference of 1 rating in 24 cases.

A difference of 2 ratings in 6 cases.

A difference of 3 ratings in 0 cases.

Third grades, 89 children.

Complete correspondence in 49 cases = 55% +.

A difference of 1 rating in 35 cases.

A difference of 2 ratings in 5 cases.

A difference of 3 ratings in 0 cases.

Fourth grades, 117 children.

Complete correspondence in 65 cases = 55% +.

A difference of 1 rating in 45 cases.

A difference of 2 ratings in 7 cases.

A difference of 3 ratings in 0 cases.

Fifth grades, 112 children.

Complete correspondence in 62 cases = 55% +.

A difference of 1 rating in 43 cases.

A difference of 2 ratings in 7 cases.

A difference of 3 ratings in 0 cases.

Sixth grades, 80 children.

Complete correspondence in 46 cases = 57.5%.

A difference of 1 rating in 32 cases.

A difference of 2 ratings in 2 cases.

A difference of 3 ratings in 0 cases.

These correspondences indicate a high reliability as a measuring instrument for the Dearborn Test C. We could hardly expect a higher relationship, for as Professor Dearborn states, "differences between judgments of teachers and the results of the tests are to be expected in many cases. Teachers naturally estimate intelligence from the success or failure in school studies and sometimes from the success or failure in a single school subject. They frequently underestimate the intelligence of pupils who are younger than the average of the class and overestimate that of over-aged pupils. One of the purposes of the tests is to aid in the correction of these judgments."

In the last few years, enough work has been done in intelligence testing, in various fields, to prove that Intelligence tests are trustworthy instruments for measuring general intelligence. They are not infallible, and sometimes individuals get poorer I. Q.'s than they deserve. In rarer cases, due to copying, coaching or getting "test wise," an individual receives too high an I. Q. But when used to measure groups, and to compare groups with one another, both individual errors within groups and between groups tend to be equalized, and to permit safe and fair conclusions to be drawn.

CHAPTER IV

ANALYSIS OF THE INTELLIGENCE QUOTIENTS ON THE BASIS OF NATIONALITY

In two preceding chapters the source, origin, age, grade, educational and environmental status of the testees were given and the intelligence tests were reproduced with general comments on Language and Time as factors bearing on the I. Q. results. The present chapter analyzes, by national classification, the results obtained from the use of these tests.

The I. Q. averages, together with the Standard Deviations and the numbers of each group, are shown in Table No. 1.

TABLE I

	I. Q. Average	Standard Deviation	Nos.
Polish Jews*	102.8	14.55	75
Swedes	102.1	15.48	232
English	100.7	14.85	213
Russian Jews**	99.5	14.58	627
Germans	98.5	15.09	190
Americans	98.3	15.87	1030
Lithuanians	97.4	13.89	468
Irish	95.9	16.08	214
British Canadians	93.8	14.67	155
Russians	90.0	12.93	90
Poles	89.6	12.96	227
Greeks	87.8	15.12	270
Italians	85.8	11.94	350
French Canadians	85.3	14.55	243
Negroes	84.6	15.32	449
Portuguese	82.7	13.47	671

On the following page, Figure I gives the standing of the various National groups. The comparison is not entirely reliable for it takes account only of the actual I. Q. differences and does not take into account the number of cases nor the variability of each group.

*Polish Jewish children are the American-born children of immigrants who came from the limits of Poland as it was prior to 1918.

**Russian Jewish children are the American-born children of immigrants who came from the limits of Russia as it was prior to 1918.

NOTE—Two more groups whose numbers are too small to be statistically valid are: 40 Scotch, I. Q. 103; 26 Armenians, I. Q. 81.

In addition to "testing the tests" by the correlations and correspondences between teachers' judgments of the intelligence of their children and the I. Q. ratings, as has been ad-
duced in this chapter, we have collected further experimental
evidence that the tests measure intelligence. This additional
data, also serving to show other facts, is given in chapter VI.

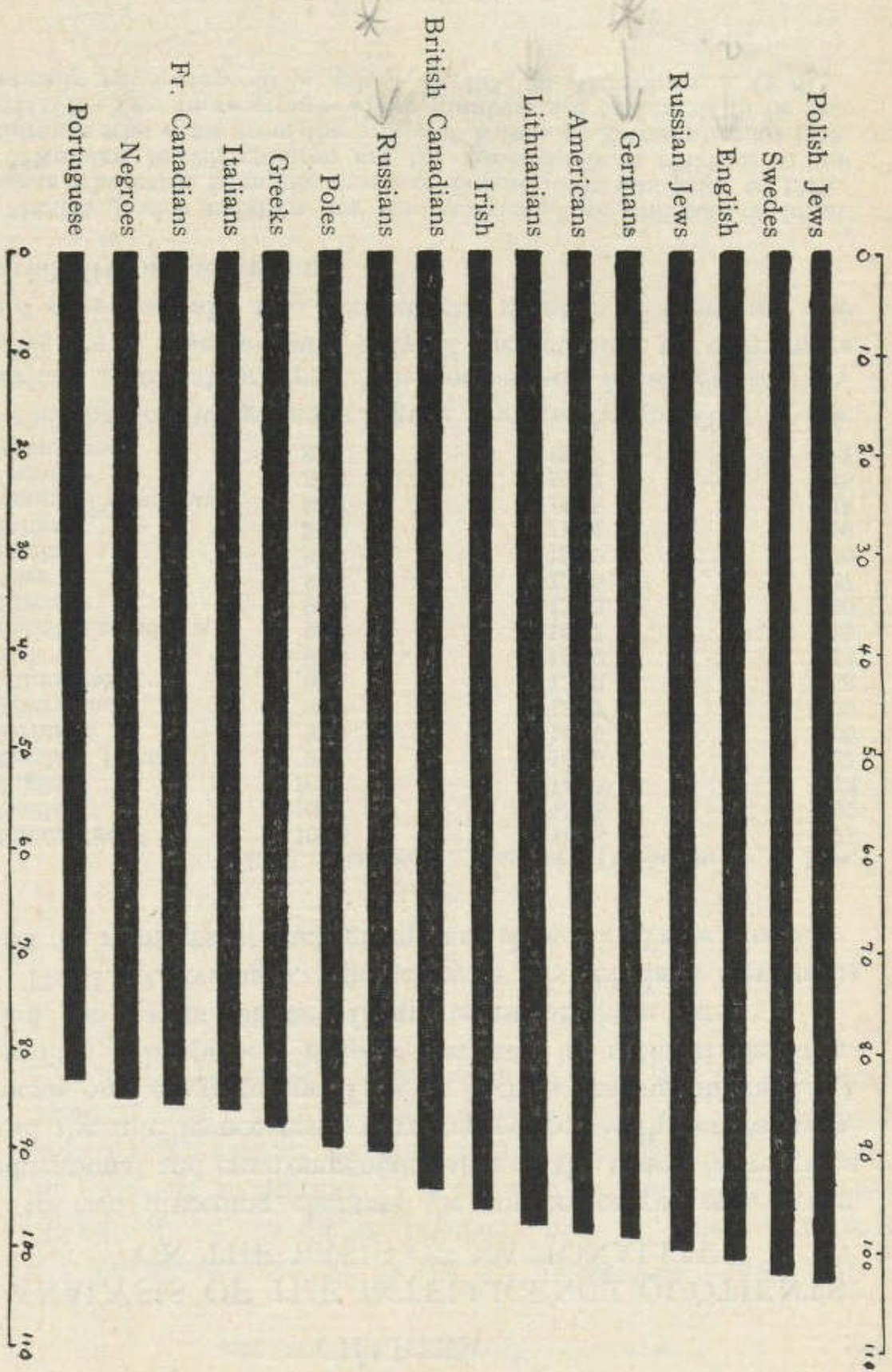


FIGURE I

TABLE 2
Analysis of Each National Group on the Basis of Distribution
of Scores

I. Q. Intervals	English	Americans	Lithuanians	Poles	Italians	French Canadians	Portuguese
151-153	0	1	0	0	0	0	0
148-150	0	1	0	0	0	0	0
145-147	0	0	0	0	0	0	0
142-144	0	1	1	0	0	0	0
139-141	1	4	5	0	0	0	0
136-138	1	6	0	0	0	0	0
133-135	2	8	1	0	0	0	1
130-132	1	10	4	0	0	0	2
127-129	4	14	3	0	0	0	1
124-126	4	16	5	0	0	1	2
121-123	6	17	8	1	3	1	2
118-120	9	28	5	1	2	1	2
115-117	12	43	14	2	2	2	1
112-114	13	58	14	4	1	3	5
109-111	17	54	24	10	5	6	6
106-108	11	64	32	6	6	7	12
103-105	14	64	40	16	8	15	15
100-102	19	65	50	16	9	12	18
97-99	17	89	57	10	23	9	28
94-96	12	83	46	20	31	13	35
91-93	16	75	38	14	32	19	45
88-90	22	80	22	24	29	14	47
85-87	5	64	30	27	35	17	59
82-84	6	41	13	13	37	22	62
79-81	4	45	14	17	28	18	52
76-78	5	33	8	13	24	15	52
73-75	4	23	9	9	24	15	55
70-72	5	17	9	6	23	19	54
67-69	0	8	7	10	15	10	44
64-66	2	4	5	4	6	9	28
61-63	1	4	1	3	5	6	17
58-60	0	4	2	1	0	7	18
55-57	0	3	0	0	2	0	3
52-54	0	2	1	0	0	2	4
49-51	0	1	0	0	0	0	1
No. of cases	213	1030	468	227	350	243	671
Average	100.7	98.3	97.4	89.6	85.8	85.3	82.7
S. D.	14.85	15.87	13.89	12.96	11.94	14.55	13.47

TABLE 2 (Continued)

Analysis of Each National Group on the Basis of Distribution of Scores

I. Q. Intervals	Swedes	Russian Jews	Germans	Irish	Russians	Greeks
152-154	0	1	1	1	0	0
149-151	0	2	0	0	0	0
146-148	0	0	0	0	0	1
143-145	2	1	0	2	0	0
140-142	1	2	1	0	0	0
137-139	2	5	2	0	0	1
134-136	2	1	1	1	0	0
131-133	0	5	1	0	0	0
128-130	1	7	2	3	2	2
125-127	4	4	2	2	0	1
122-124	13	13	1	5	0	1
119-121	8	21	3	4	1	4
116-118	14	20	10	5	0	0
113-115	10	23	5	10	1	4
110-112	13	31	5	9	6	6
107-109	16	45	17	9	1	10
104-106	25	44	18	12	3	11
101-103	13	48	14	13	0	12
98-100	20	52	12	19	7	14
95-97	15	62	18	8	6	15
92-94	11	58	21	20	13	16
89-91	18	43	17	11	6	19
86-88	12	41	12	20	10	30
83-85	10	21	5	12	7	20
80-82	9	17	4	17	11	23
77-79	3	17	4	9	3	16
74-76	1	14	5	10	6	15
71-73	3	9	4	4	2	23
68-70	0	9	2	3	3	6
65-67	2	7	0	1	0	8
62-64	3	5	1	2	1	5
59-61	1	1	1	0	1	4
56-58	0	0	1	1	0	2
53-55	0	0	0	0	0	1
No. of cases	232	627	190	214	90	270
Average	102.1	99.5	98.5	95.9	90.0	87.8
S. D.	15.48	14.58	15.09	16.08	12.93	15.12

629 wrong 213

TABLE 2 (Continued)

Analysis of Each National Group on the Basis of Distribution of Scores

I. Q. Intervals	Polish Jews	British Canadians	Negroes
147-149	1	0	0
144-146	1	1	0
141-143	0	0	0
138-140	0	0	0
135-137	0	1	1
132-134	0	0	0
129-131	0	1	0
126-128	1	1	1
123-125	3	2	1
120-122	4	0	5
117-119	0	3	4
114-116	5	3	4
111-113	4	10	7
108-110	7	6	13
105-107	7	8	13
102-104	9	7	15
99-101	9	8	20
96-98	4	13	25
93-95	3	18	29
90-92	5	17	29
87-89	1	9	26
84-86	1	10	34
81-83	4	13	32
78-80	3	6	33
75-77	0	3	35
72-74	1	5	27
69-71	2	6	26
66-68	0	1	20
63-65	0	1	20
60-62	0	1	14
57-59	0	1	7
54-56	0	0	2
51-53	0	0	4
48-50	0	0	2
No. of cases	75	155	449
Average	102.8	93.8	84.6
S. D.	14.55	14.67	15.32

The mental age of the average American adult is given as 14 years, 6 months by the author of the Dearborn tests. For immediate purposes, accepting this age as valid and relying on the constancy of the I. Q., we can translate the I. Q.'s of the various groups into mental ages, and compare them one with another. Also we can contrast the mental ages of the English, Germans, Americans, Swedes, British Canadians, Irish, Greeks, Russians, Italians and Polish immigrants tested in the American army (*vid.* A Study of American Intelligence, page 124), with the first generation of American-born children of these countries. On the following page, Figure 2 presents on the left hand scale the mental ages of our 16 groups. The right hand scale gives the mental ages of 11 of these groups on the Stanford revision of the Binet-Simon scale as found in the army. The absolute mental age differences shown are not equally reliable, for the numbers of testees of the various groups differ as well as the variability of these groups. The most reliable differences between our 16 groups are presented in Tables 3 to 18.

These tables give the absolute differences between the I. Q. averages of the various National groups, together with the probable errors of these differences, and the ratios of the probable errors of the differences to the differences. We have followed the convention of marking "Difference unreliable," wherever the probable error of the difference is more than one-third of the difference.

The groups are arranged in each table on the basis of the reliability of the differences found between a group in question, and other groups above or below it.

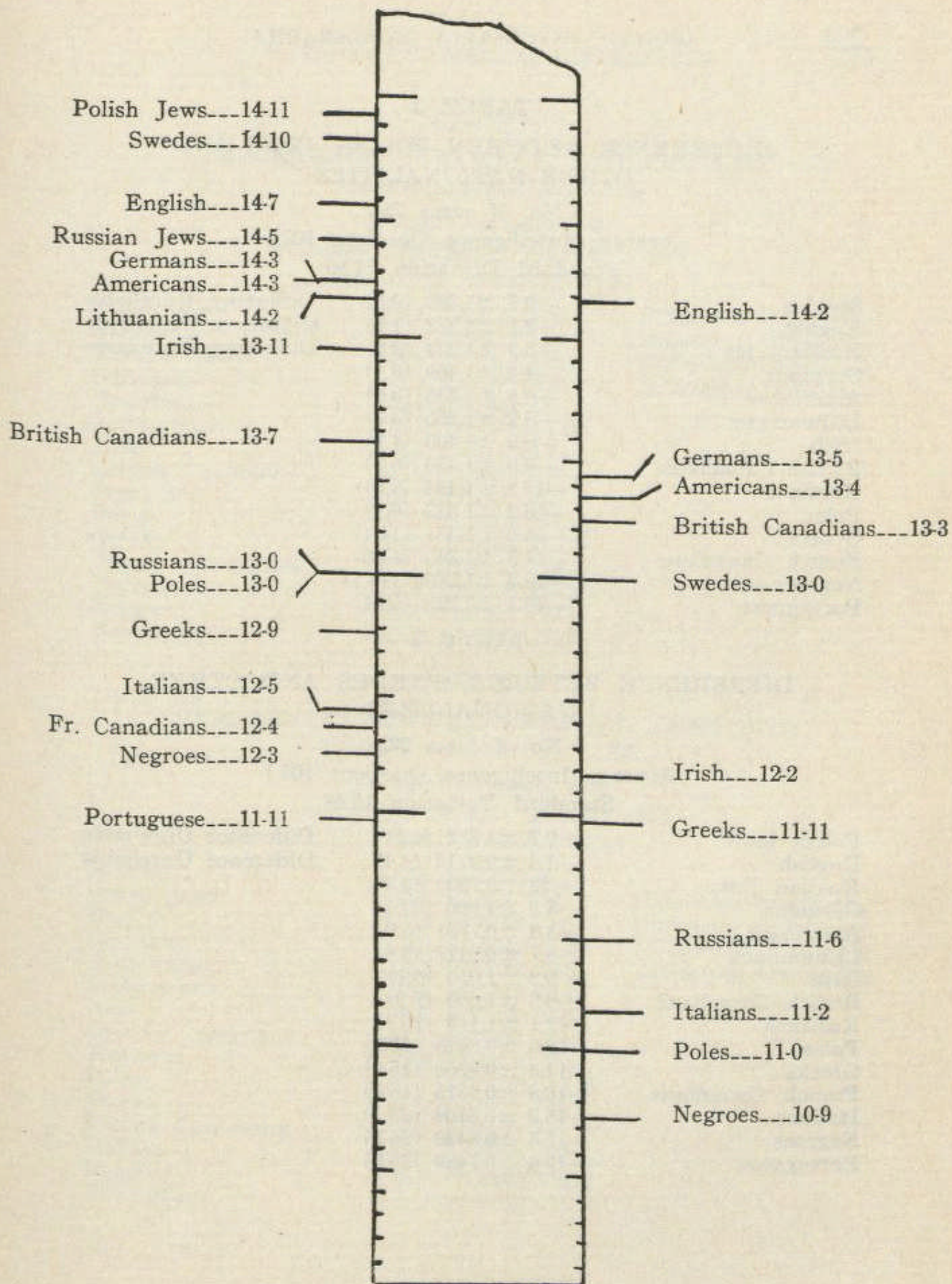


FIGURE II

TABLE 3
DIFFERENCE BETWEEN POLISH JEWS AND
OTHER NATIONALITIES

No. of cases 75		
Average Intelligence Quotient 102.8		
Standard Deviation 14.55		
Swedes	-0.7 \pm 1.382 (0.5)	Difference Unreliable
English	-2.1 \pm 1.373 (1.6)	Difference Unreliable
Russian Jews	-3.3 \pm 1.252 (2.6)	Difference Unreliable
Germans	-4.3 \pm 1.400 (3.1)	
Americans	-4.5 \pm 1.235 (3.6)	
Lithuanians	-5.2 \pm 1.265 (4.3)	
Irish	-6.9 \pm 1.403 (4.9)	
British Canadians	-9.0 \pm 1.430 (6.3)	
Russians	-12.8 \pm 1.494 (8.6)	
Poles	-13.2 \pm 1.323 (9.9)	
Greeks	-15.0 \pm 1.331 (11.1)	
French Canadians	-17.5 \pm 1.345 (13.0)	
Negroes	-18.2 \pm 1.2856 (14.1)	
Portuguese	-20.1 \pm 1.226 (16.4)	

TABLE 4
DIFFERENCE BETWEEN SWEDES AND OTHER
NATIONALITIES

No of cases 232		
Average Intelligence Quotient 102.1		
Standard Deviation 15.48		
Polish Jews	+0.7 \pm 1.382 (0.5)	Difference Unreliable
English	-1.4 \pm 0.9712 (1.4)	Difference Unreliable
Russian Jews	-26 \pm 0.7906 (3.3)	
Germans	-3.6 \pm 1.006 (3.5)	
Americans	-3.8 \pm 0.7631 (5.0)	
Lithuanians	-4.7 \pm 0.8117 (5.8)	
Irish	-6.2 \pm 1.010 (6.1)	
British Canadians	-8.3 \pm 1.050 (7.9)	
Russians	-12.1 \pm 1.113 (10.7)	
Poles	-12.5 \pm 0.8988 (13.9)	
Greeks	-14.3 \pm 0.9250 (15.4)	
French Canadians	-16.8 \pm 0.9315 (18.0)	
Italians	-16.3 \pm 0.8104 (20.1)	
Negroes	-17.5 \pm 0.8422 (20.7)	
Portuguese	-19.4 \pm 0.7489 (26.0)	

TABLE 5
DIFFERENCES BETWEEN ENGLISH AND
OTHER NATIONALITIES

Number of cases 213

Average Intelligence Quotient 100.7

Standard Deviation 14.85

Polish Jews	+2.1 \pm 1.373 (1.6)	Difference Unreliable
Swedes	+1.5 \pm 0.9712 (1.4)	Difference Unreliable
Russian Jews	-1.2 \pm 0.7913 (1.5)	Difference Unreliable
Germans	-2.2 \pm 1.007 (2.2)	Difference Unreliable
Americans	-2.4 \pm 0.7631 (3.1)	
Lithuanians	-3.3 \pm 0.8116 (4.1)	
Irish	-4.8 \pm 1.011 (4.7)	
British Canadians	-6.9 \pm 1.050 (6.5)	
Russians	-10.7 \pm 1.136 (9.4)	
Poles	-11.1 \pm 0.8992 (12.3)	
Greeks	-12.9 \pm 0.9253 (13.9)	
French Canadians	-15.4 \pm 0.9318 (16.5)	
Italians	-14.9 \pm 0.8108 (18.3)	
Negroes	-16.1 \pm 0.8425 (19.1)	
Portuguese	-18.0 \pm 0.7492 (24.0)	

TABLE 6
DIFFERENCES BETWEEN RUSSIAN JEWS AND
OTHER NATIONALITIES

Number of cases 627

Average Intelligence Quotient 99.5

Standard Deviation 14.58

Swedes	+2.6 \pm 0.7906 (3.3)	
Polish Jews	+3.3 \pm 1.252 (2.6)	Difference Unreliable
English	+1.2 \pm 0.7913 (1.5)	Difference Unreliable
Germans	-1.0 \pm 0.8342 (1.2)	Difference Unreliable
Americans	-1.2 \pm 0.5146 (2.3)	Difference Unreliable
Lithuanians	-2.1 \pm 0.5842 (3.6)	
Irish	-3.6 \pm 0.8380 (4.3)	
British Canadians	-5.7 \pm 0.8867 (6.4)	
Russians	-9.5 \pm 0.9864 (9.6)	
Poles	-11.7 \pm 0.7335 (15.9)	
Greeks	-14.2 \pm 0.7417 (19.1)	
French Canadians	-13.7 \pm 0.5825 (23.3)	
Italians	-14.9 \pm 0.6259 (23.8)	
Negroes	-16.8 \pm 0.4932 (34.1)	
Portuguese	-9.9 \pm 0.7004 (14.1)	

TABLE 7
DIFFERENCES BETWEEN GERMANS AND
OTHER NATIONALITIES

Number of cases 190		
Average Intelligence Quotient 98.5		
Standard Deviation 15.09		
Swedes	+3.6 ±1.006 (3.5)	
Polish Jews	+4.3 ±1.400 (3.1)	
English	+2.2 ±1.007 (2.2)	Difference Unreliable
Russian Jews	+1.0 ±0.8342 (1.2)	Difference Unreliable
Americans	-0.2 ±0.8076 (0.25)	Difference Unreliable
Lithuanians	-1.1 ±0.8543 (1.3)	Difference Unreliable
Irish	-2.6 ±1.044 (2.5)	Difference Unreliable
British Canadians	-4.7 ±1.083 (4.4)	
Russians	-8.5 ±1.166 (7.3)	
Poles	-8.9 ±0.9375 (9.5)	
Greeks	-10.7 ±0.9526 (11.2)	
French Canadians	13.2 ±0.9688 (13.6)	
Italians	-12.7 ±0.8530 (14.9)	
Negroes	-13.9 ±0.8833 (15.7)	
Portuguese	-15.8 ±0.7949 (19.9)	

TABLE 8
DIFFERENCES BETWEEN AMERICANS AND
OTHER NATIONALITIES

Number of cases 1030		
Average Intelligence Quotient 98.3		
Standard Deviation 15.87		
Swedes	+3.8 ±0.7631 (5.0)	
Polish Jews	+4.5 ±1.235 (3.6)	
English	+2.4 ±0.7631 (3.1)	
Russian Jews	+1.2 ±0.5146 (2.3)	Difference Unreliable
Germans	+0.2 ±0.8076 (0.25)	Difference Unreliable
Lithuanians	-0.9 ±0.5465 (1.6)	Difference Unreliable
Irish	-2.4 ±0.8127 (2.9)	Difference Unreliable
British Canadians	-4.5 ±0.8622 (5.2)	
Russians	-8.3 ±0.9645 (8.6)	
Poles	-8.7 ±0.6692 (11.5)	
Greeks	-10.5 ±0.7038 (14.9)	
French Canadians	-13.0 ±0.7123 (18.2)	
Italians	-12.5 ±0.5448 (22.9)	
Negroes	-13.7 ±0.5908 (23.1)	
Portuguese	-15.6 ±0.4477 (34.8)	

TABLE 9
DIFFERENCES BETWEEN LITHUANIANS AND
OTHER NATIONALITIES

Number of cases 468		
Average Intelligence Quotient 97.4		
Standard Deviation 13.89		
Swedes	+4.7 ±0.8117 (5.8)	
Polish Jews	+5.2 ±1.265 (4.3)	
English	+3.3 ±0.8116 (4.1)	
Russian Jews	+2.1 ±0.5842 (3.6)	
Americans	+0.9 ±0.5465 (1.6)	Difference Unreliable
Germans	+1.1 ±0.8543 (1.3)	Difference Unreliable
Irish	-1.5 ±0.8582 (1.7)	Difference Unreliable
British Canadians	-3.6 ±0.9055 (4—)	
Russians	-7.4 ±1.003 (7.4)	
Poles	-7.8 ±0.7241 (10.8)	
Greeks	-9.6 ±0.7562 (12.7)	
French Canadians	-12.1 ±0.8582 (14.1)	
Italians	-11.6 ±0.6107 (18.9)	
Negroes	-12.8 ±0.6523 (19.6)	
Portuguese	-14.7 ±0.5264 (27.9)	

TABLE 10
DIFFERENCES BETWEEN IRISH AND
OTHER NATIONALITIES

Number of cases 214		
Average Intelligence Quotient 95.9		
Standard Deviation 16.08		
Swedes	+6.2 ±1.010 (6.1)	
Polish Jews	+6.9 ±1.403 (4.9)	
English	+4.8 ±1.011 (4.7)	
Russian Jews	+3.6 ±0.8380 (4.3)	
Americans	+2.4 ±0.8127 (2.9)	Difference Unreliable
Germans	+2.6 ±1.044 (2.5)	Difference Unreliable
Lithuanians	+1.5 ±0.8582 (1.7)	Difference Unreliable
English Canadians	-2.1 ±1.087 (1.9)	Difference Unreliable
Russians	-5.9 ±1.169 (5.0)	
Poles	-6.3 ±0.9414 (6.7)	
Greeks	-8.1 ±0.9663 (8.4)	
French Canadians	-10.6 ±0.9725 (10.9)	
Italians	-10.1 ±0.8573 (11.8)	
Negroes	-11.3 ±0.8874 (12.7)	
Portuguese	-13.2 ±0.7993 (17.9)	

TABLE 11
DIFFERENCE BETWEEN BRITISH CANADIANS AND
OTHER NATIONALITIES

Number of Cases 155		
Average Intelligence Quotient 93.8		
Standard Deviation 14.67		
Swedes	+8.3 ±1.050 (7.9)	
English	+6.9 ±1.051 (6.5)	
Russian Jews	+5.7 ±0.8876 (6.4)	
Polish Jews	+9.0 ±1.430 (6.3)	
Americans	+4.5 ±0.8622 (5.2)	
Germans	+4.7 ±1.083 (4.4)	
Lithuanians	+3.6 ±0.9055 (4.0)	
Irish	+2.1 ±1.087 (1.9)	Difference Unreliable
Russians	-3.8 ±1.204 (3.2)	
Poles	-4.2 ±0.9844 (4.3)	
Greeks	-6.0 ±1.008 (5.9)	
French Canadians	-8.5 ±1.014 (8.4)	
Italians	-8.0 ±0.9044 (8.8)	
Negroes	-9.2 ±0.9329 (9.8)	
Portuguese	-11.1 ±0.8490 (13.0)	

TABLE 12
DIFFERENCE BETWEEN RUSSIANS AND OTHER
NATIONALITIES

Number of Cases 90		
Average Intelligence Quotient 90		
Standard Deviation 12.93		
Swedes	+12.1 ±1.136 (10.7)	
Russian Jews	+9.5 ±0.9864 (9.6)	
English	+10.7 ±1.1362 (9.4)	
Americans	+8.3 ±0.9645 (8.6)	
Polish Jews	+12.8 ±1.494 (8.6)	
Lithuanians	+7.4 ±1.003 (7.4)	
Germans	+8.5 ±1.166 (7.3)	
Irish	+5.9 ±1.169 (5.0)	
British Canadians	+3.8 ±1.204 (3.2)	
Poles	-0.4 ±1.075 (0.37)	Difference Unreliable
Greeks	-2.2 ±1.097 (2.0)	
Italians	-4.2 ±1.002 (4.2)	Difference Unreliable
French Canadians	-4.7 ±1.102 (4.3)	
Negroes	-5.4 ±1.0282 (5.2)	
Portuguese	-7.2 ±0.9532 (7.6)	

TABLE 13
DIFFERENCE BETWEEN POLES AND OTHER
NATIONALITIES

Number of Cases 227

Average Intelligence Quotient 89.6

Standard Deviation 12.96

Russian Jews	+9.9 ±0.7004 (14.1)	
Swedes	+12.5 ±0.8988 (13.9)	
English	+11.1 ±0.8992 (12.3)	
Americans	+8.7 ±0.6692 (11.5)	
Polish Jews	+13.2 ±1.3234 (9.9)	
Lithuanians	+7.8 ±0.7242 (10.8)	
Germans	+8.9 ±0.9375 (9.5)	
Irish	+6.3 ±0.9414 (6.7)	
British Canadians	+4.2 ±0.9844 (4.3)	
Russians	+0.4 ±1.075 (0.37)	Difference Unreliable
Greeks	-1.8 ±0.8489 (2.1)	Difference Unreliable
French Canadians	-4.3 ±0.8562 (5.0)	
Italians	-4.0 ±0.7226 (5.5)	
Negroes	-5.0 ±0.7581 (6.5)	
Portuguese	-6.9 ±0.6528 (10.6)	

TABLE 14
DIFFERENCE BETWEEN GREEKS AND OTHER
NATIONALITIES

Number of Cases 270

Average Intelligence Quotient 87.8

Standard Deviation 15.12

Russian Jews	+11.7 ±0.7335 (15.9)	
Swedes	+14.3 ±0.9250 (15.4)	
Americans	+10.5 ±0.7038 (14.9)	
English	+12.9 ±0.9253 (13.9)	
Lithuanians	+9.6 ±0.7562 (12.7)	
Germans	+10.7 ±0.9526 (11.2)	
Polish Jews	+15.0 ±1.331 (11.1)	
Irish	+8.1 ±0.9663 (8.4)	
British Canadians	+6.0 ±1.008 (5.9)	
Poles	+1.8 ±0.8489 (2.1)	Difference Unreliable
Russians	+2.2 ±1.097 (2.0)	Difference Unreliable
Italians	-2.0 ±0.7548 (2.6)	Difference Unreliable
French Canadians	-2.5 ±0.8831 (2.8)	Difference Unreliable
Negroes	-3.2 ±0.7888 (4.0)	
Portuguese	-5.1 ±0.6882 (7.4)	

TABLE 15
DIFFERENCE BETWEEN ITALIANS AND OTHER
NATIONALITIES

Number of Cases 350		
Average Intelligence Quotient 85.8		
Standard Deviation 11.94		
Russian Jews	+13.7 ±0.5825 (23.3)	
Americans	+12.5 ±0.5448 (22.9)	
Swedes	+16.3 ±0.8104 (20.1)	
Lithuanians	+11.6 ±0.6107 (18.9)	
English	+14.9 ±0.8108 (18.3)	
Germans	+12.7 ±0.8530 (14.9)	
Polish Jews	+17.0 ±1.2650 (13.4)	
Irish	+10.1 ±0.8573 (11.8)	
British Canadians	+8.0 ±0.9044 (8.8)	
Poles	+3.8 ±0.7226 (5.2)	
Russians	+4.2 ±1.002 (4.2)	
Greeks	+2.0 ±0.7548 (2.6)	Difference Unreliable
French Canadians	-0.5 ±0.7627 (0.7)	Difference Unreliable
Negroes	-1.2 ±0.6507 (1.8)	Difference Unreliable
Portuguese	-3.1 ±0.5242 (5.7)	

TABLE 16
DIFFERENCE BETWEEN FRENCH CANADIANS
AND OTHER NATIONALITIES

Number of Cases 243		
Average Intelligence Quotient 85.3		
Standard Deviation 14.55		
Russian Jews	+14.2 ±0.7417 (19.1)	
Americans	+13.0 ±0.7123 (18.2)	
Swedes	+16.8 ±0.9315 (18.0)	
English	+15.4 ±0.9318 (16.5)	
Lithuanians	+12.1 ±0.8582 (14.1)	
Germans	+13.2 ±0.9688 (13.6)	
Polish Jews	+17.5 ±1.345 (13.0)	
Irish	+10.6 ±0.9725 (10.9)	
British Canadians	+8.5 ±1.014 (8.4)	
Poles	+4.3 ±0.8562 (5.0)	
Russians	+4.7 ±1.102 (4.3)	
Greeks	+2.5 ±0.8831 (2.8)	Difference Unreliable
Italians	+0.5 ±0.7627 (0.7)	Difference Unreliable
Negroes	-0.7 ±0.7964 (0.8)	Difference Unreliable
Portuguese	-2.6 ±0.6965 (3.7)	

TABLE 17
DIFFERENCE BETWEEN NEGROES AND OTHER
NATIONALITIES

Number of Cases 449		
Average Intelligence Quotient 84.6		
Standard Deviation 15.32		
Russian Jews	+14.9 ± .6259 (23.8)	
Americans	+13.7 ± .5908 (23.1)	
Swedes	+17.5 ± .8422 (20.7)	
Lithuanians	+12.8 ± .6523 (19.6)	
English	+16.1 ± .8425 (19.1)	
Germans	+13.9 ± .8833 (15.7)	
Polish Jews	+18.2 ± 1.2856 (14.1)	
Irish	+11.3 ± .8874 (12.7)	
British Canadians	+9.2 ± .9329 (9.8)	
Poles	+5.0 ± .7581 (6.5)	
Russians	+5.4 ± 1.0282 (5.2)	
Greeks	+3.2 ± .7888 (4.0)	
Italians	+1.2 ± .6507 (1.8)	Difference Unreliable
French Canadians	+0.7 ± .7964 (0.8)	Difference Unreliable
Portuguese	-1.9 ± .5722 (3.3)	

TABLE 18
DIFFERENCE BETWEEN PORTUGUESE AND
OTHER NATIONALITIES

Number of Cases 671	
Average Intelligence Quotient 82.7	
Standard Deviation 13.47	
Americans	+15.6 ± 0.4477 (34.8)
Russian Jews	+16.8 ± 0.4932 (34.1)
Lithuanians	+14.7 ± 0.5264 (27.9)
Swedes	+19.4 ± 0.7489 (26.0)
English	+18.0 ± 0.7492 (24.0)
Germans	+15.8 ± 0.7949 (19.9)
Irish	+13.2 ± 0.7993 (17.9)
Polish Jews	+20.1 ± 1.226 (16.4)
British Canadians	+11.1 ± 0.8490 (13.0)
Poles	+6.91 ± 0.6528 (10.6)
Russians	+7.2 ± 0.9532 (7.6)
Greeks	+5.1 ± 0.6882 (7.4)
Italians	+3.1 ± 0.5242 (5.7)
French Canadians	+2.6 ± 0.6965 (3.7)
Negroes	+1.9 ± 0.5722 (3.3)

Tables 3 to 18 present the most adequate and accurate differences found between the 16 National groups. It is perhaps desirable to portray these results in more concrete and picturable terms. In Terman's "The Measurement of Intelligence" a classification of Intelligence Quotients is found (page 79) that has met with general acceptance. We shall use two of these Quotients to reveal some of the differences existing between our National groups of testees. An Intelligence Quotient of 120-140 is designated "very superior intelligence." An Intelligence Quotient of above 140 is termed "near" genius. On the lower end of the intelligence scale an I. Q. of less than 80 is termed "border line deficiency." We pragmatically accept and utilize these class distinctions, realizing, however, that these boundary lines of divisions are arbitrary and that they have not met with universal approval by specialists in mental tests.

TABLE 19

Percent of each National group at or above 120 I. Q.

Polish Jews	13.3
Swedes	12.5
English	10.8
Russian Jews	9.1
Americans	8.4
Irish	7.9
Germans	6.9
Lithuanians	5.9
British Canadians	3.9
Russians	3.3
Greeks	3.3
Negroes	1.8
French Canadians	1.2
Portuguese	1.2
Italians	1.1
Poles	0.9

Figure 3 presents the per cent of each national group receiving an I. Q. at or above 120.

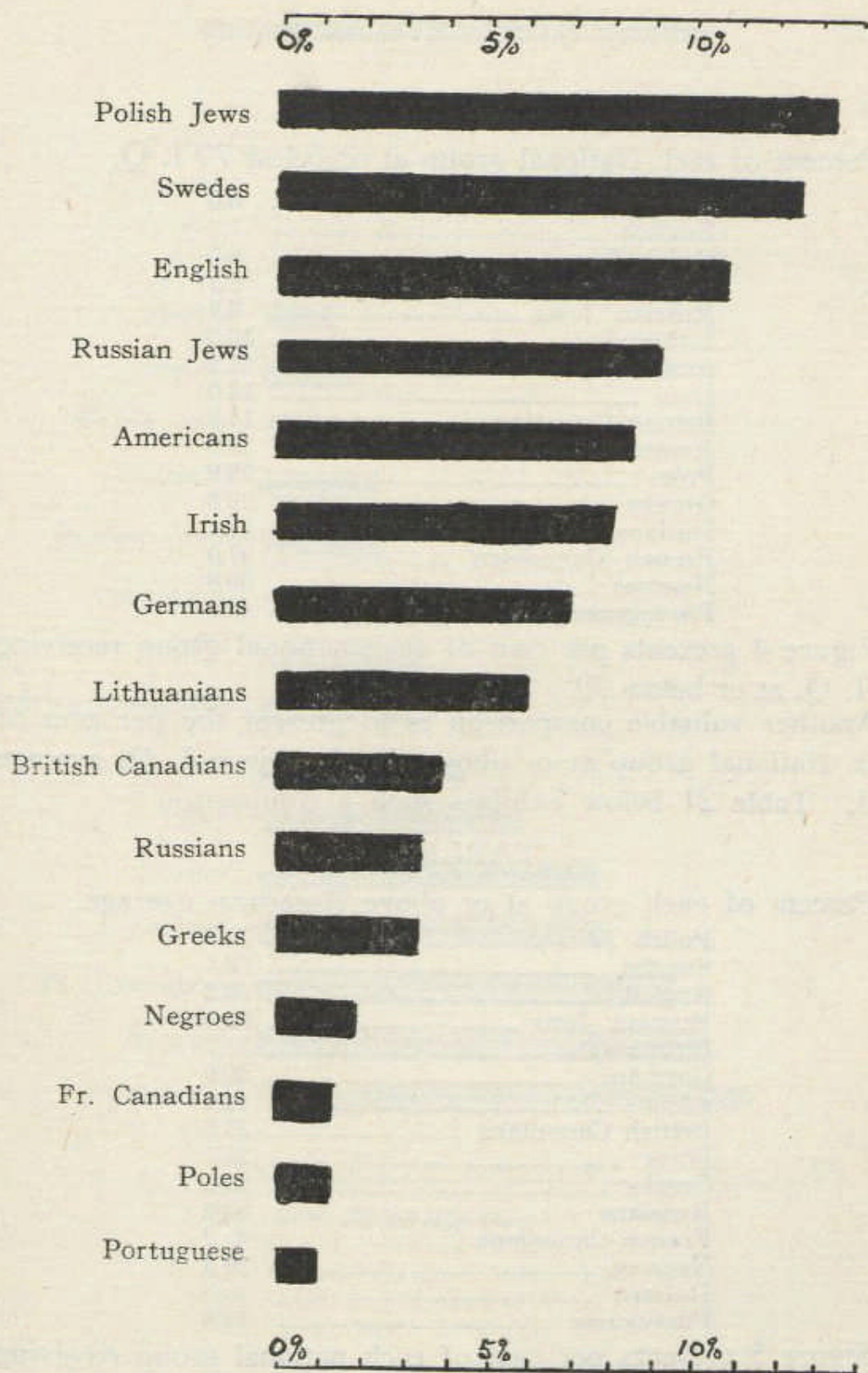


FIGURE III

TABLE 20

Percent of each National group at or below 79 I. Q.

Swedes	5.6
English	7.9
Polish Jews	8.0
Germans	9.5
Russian Jews	9.9
Lithuanians	10.0
Americans	11.1
Irish	14.0
British Canadians	14.8
Russians	17.8
Poles	22.9
Greeks	29.6
Italians	31.1
French Canadians	37.0
Negroes	39.8
Portuguese	43.7

Figure 4 presents per cent of each national group receiving an I. Q. at or below 79.

Another valuable comparison is to present the per cent of each National group at or above the American I. Q. average 98.3. Table 21 below exhibits such a comparison.

TABLE 21

Percent of each group at or above American average.

Polish Jews	70.7
Swedes	62.1
English	59.2
Russian Jews	52.0
Lithuanians	51.7
Germans	50.0
Irish	44.4
British Canadians	35.5
Poles	25.1
Greeks	24.8
Russians	23.3
French Canadians	22.2
Negroes	20.5
Italians	17.0
Portuguese	12.8

Figure 5 presents per cent of each national group receiving an I. Q. at or above the American I. Q. average.

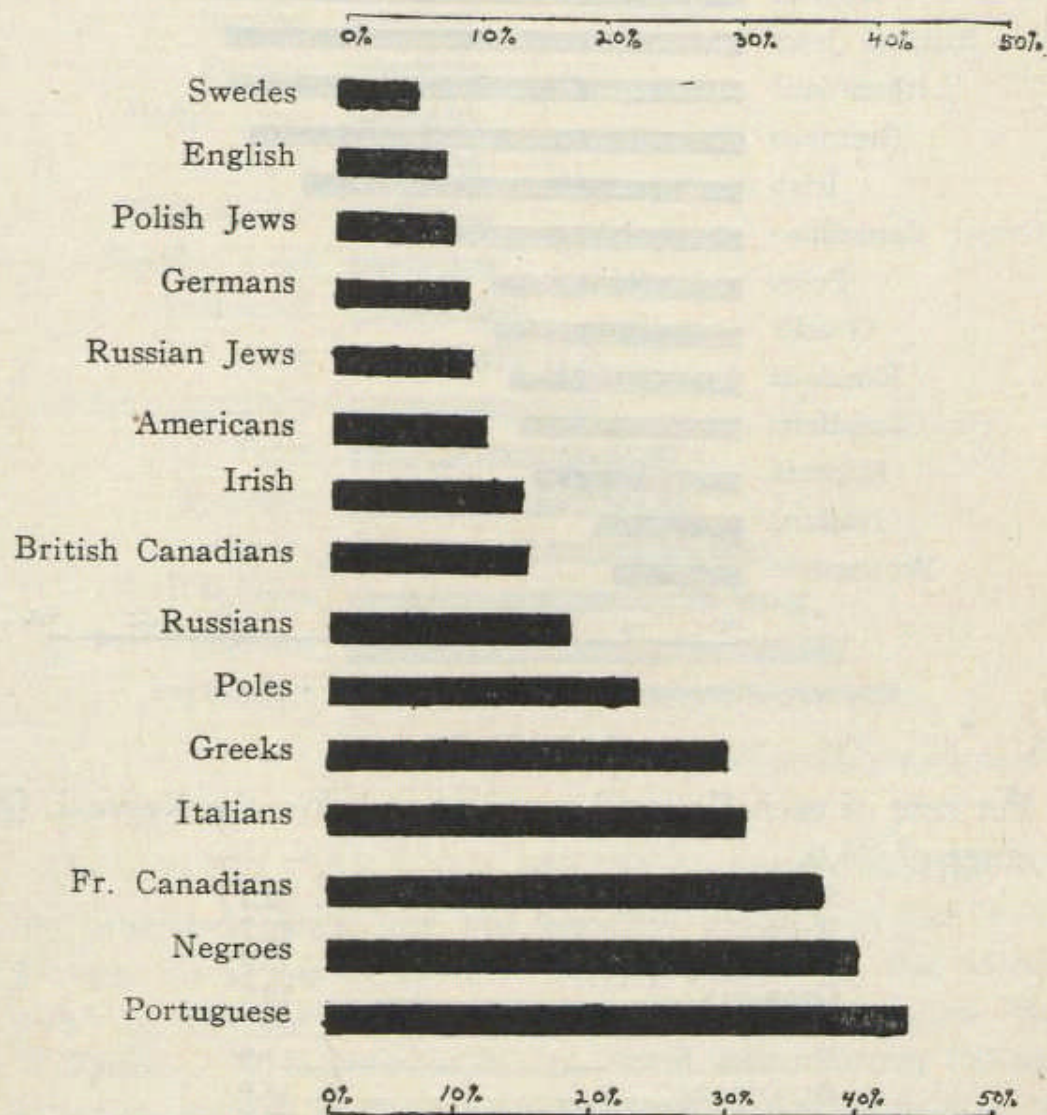


FIGURE IV

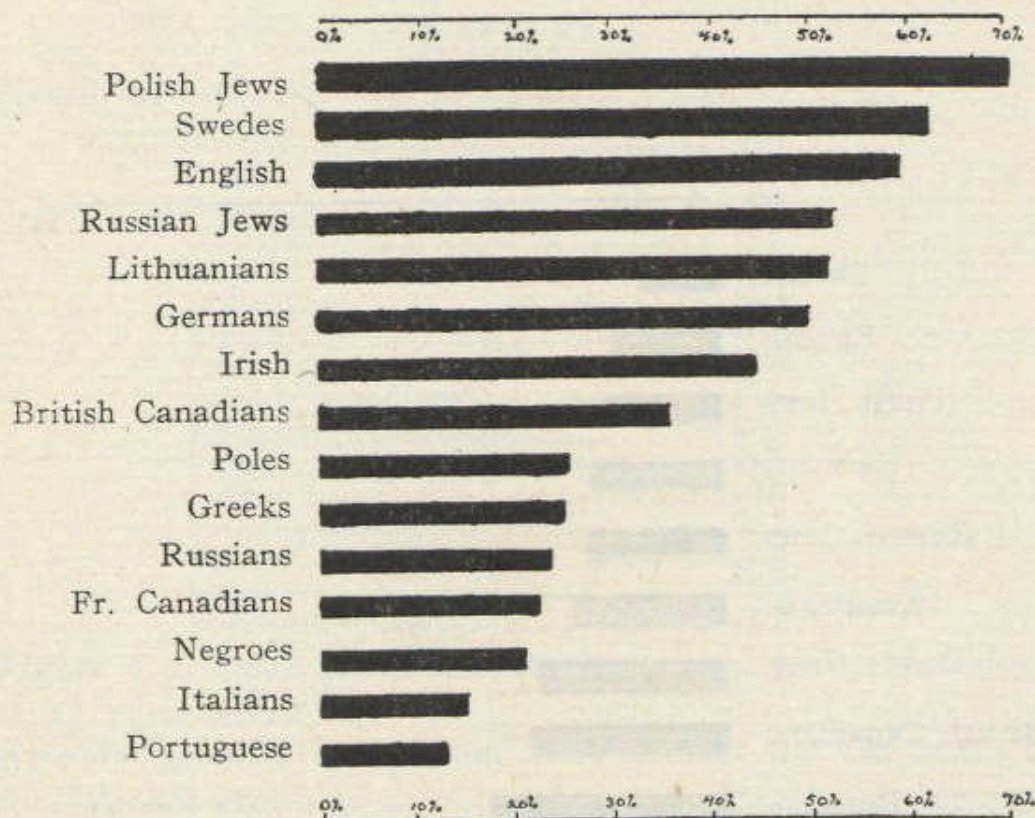


FIGURE V

TABLE 22

Per cent of each National group at or below the Negro I. Q. average of 84.6.

Swedes	12.1
English	12.7
Polish Jews	13.3
Germans	13.6
Lithuanians	14.7
Russian Jews	14.8
Americans	17.9
Irish	25.7
British Canadians	26.5
Poles	33.5
Russians	34.4
Greeks	42.9
Italians	46.9
French Canadians	50.6
Portuguese	56.2

Figure 6 presents per cent of each national group receiving an I. Q. at or below the Negro I. Q. average.



FIGURE VI

On page 287 Table 1 gives the I. Q. averages, together with the Standard Deviations and numbers of each of the sixteen groups. It is worth while to reproduce part of this table in order to link these National groups with the so-called Races of Europe. It is noteworthy to observe that among the eight superior mental groups, only two are National groups that have been characterized as Nordic, that is, the English and Swedes. Again, it is interesting to observe that one so-called Nordic group is in the second division of National groups. The general mental inferiority of the so-called Mediterranean National groups is unquestionable; the highest National group

of this blood, the Irish, are less intelligent than the non-English speaking Lithuanians.

	I. Q. Ave.	Blood
Polish Jews	102.8	Jewish
Swedes	102.1	Nordic
English	100.7	Largely Nordic
Russian Jews	99.5	Jewish
Germans	98.5	Largely Alpine
American	98.3	Composite of 4 bloods
Lithuanians	97.4	Largely Alpine
Irish	95.9	Largely Mediterranean
British Canadians	93.8	Largely Nordic
Russians	90.0	Largely Alpine
Poles	89.6	Largely Alpine
Greeks	87.8	Largely Mediterranean
Italians	85.8	Largely Mediterranean
French Canadians	85.3	Largely Alpine (some Indian)
Negroes	84.6	Largely Negro (some white)
Portuguese	82.7	Largely Mediterranean (some negro)

Summary of Chapter IV

There are significant and reliable mental differences among most of the sixteen National or quasi-National groups considered in this chapter.

The important mental differences that were discovered to exist among these National groups were not only differences in the average mentality of these groups, but more striking, there were enormous differences in the proportions of "very superior intelligence" and "border line deficiency" subjects within each National group.

A comparison of the proportion of each National group at or above the American mental average, and at or below the Negro mental average afforded valuable insight into the nature of the immigration, on the basis of *Nationality*, that the United States has been receiving.

The intelligence of the National groups showed that there is no connection between high intelligence and the possession of so-called Nordic blood. The eight National groups that

were superior in intelligence consisted of: two National groups that have been called Nordic, the English and the Swedes; two National groups that have been thought to possess 60 per cent or more of Alpine blood, the Germans and the Lithuanians; two quasi-National groups of Jews; one quasi-National group of so-called Mediterranean blood, the Irish; and one National group that is a composite of all four bloods, the Americans.

Differences in intelligence therefore are National or Natio-Racial, not Racial.

CHAPTER V

CRITICISMS OF THE RESULTS

In the preceding chapter the results from the testing of 5,504 school subjects were exhibited in several ways. In this section four general criticisms of these results will be discussed and refuted.

1. *Unfamiliarity with the English language as a possible cause of the low I. Q. averages of certain nationalities.*

In chapter II the relatively non-linguistic nature of the tests used was shown. However, a critic might justly inquire if the tests were not more fitted for American-born children of parents from English speaking countries than for American-born children of parents from non-English speaking countries, despite the fact that all of the testees were American-born. That is, might not the five and one-half or six years spent in the home before school age have acted as a decisive factor in the group differences in mentality?

The validity of this criticism can be experimentally weighed, for if the absence of English, or of excellent English or of much English in the home during the first six years of life were weighty in producing the results, then its greatest weight would be shown in the first few grades and there would be a progressive lessening of the influence of language on the intelligence scores in the higher grades, where the children have been many years in an English speaking school system. In other words, if the criticism is valid, the I. Q. averages of the non-English speaking groups should rise more points as we proceed upwards in a graded school system than the normal rise of the I. Q. average among English speaking persons.

On page 18 of Professor Dearborn's "Manual of Directions for Giving and Scoring the Dearborn Group Tests of

Intelligence," Series II, the median I. Q. from the second grade upward is shown. The median I. Q. difference between the second and third grades is very small, and there is evidence to show that the median I. Q. difference between the second and first grades is negligible.*

Below, are the *approximate* median I. Q.'s for grades 1 through 9.

Grade	I. Q. Median
I	96.8
II and III	97.0
IV	97.4
V	99.0
VI and VII	100.6
VIII	104.3
IX	105.7

Now let us compare these *grade* I. Q. averages with the *grade* I. Q. averages of our 16 National groups by examining Table 23.

In examining Table 23 several points should be especially noted:

1. The general tendency of a small increase is noted in the I. Q. grade averages of all the groups of children whose parents came from *non-English speaking countries* (except the Italians where there is an actual progressive *decrease* in the I. Q. grade averages of the 4th, 5th, 6th and 7th grades).

2. The groups of children whose parents came from *English speaking countries* (the English, Irish, British Canadians, Negroes and Americans) show a *similar* increase in the I. Q. averages as we pass from the lower to the higher grades.

3. All of the groups show a general tendency in the in-

*Throughout this volume we have expressed our results in terms of I. Q. averages instead of in I. Q. medians. However, since the distributions for the Dearborn A and C tests were fairly normal there is little difference between grade averages and grade medians for this test.

TABLE 23

I. Q. Averages of the 16 Groups by Grades and the Dearborn Standard Group

I. Q. Averages by Grades

	1st		2nd and 3rd		4th		5th		6th and 7th		8th		9th	
	No.	I. Q. Av.	No.	I. Q. Av.	No.	I. Q. Av.	No.	I. Q. Av.	No.	I. Q. Av.	No.	I. Q. Av.	No.	I. Q. Av.
Polish Jews	2	121.0	27	99.6	4	92.0	8	104.1	20	101.6	9	114.8	5	103.8
Swedes	15	93.3	48	101.7	22	98.0	19	102.7	79	101.9	46	107.0	3	108.6
English	12	95.7	54	97.0	22	95.6	28	98.5	58	102.8	34	107.8	5	107.4
Russian Jews	75	97.7	134	97.9	37	102.8	62	102.1	221	97.5	37	109.8	61	101.3
Germans	8	86.3	42	97.5	13	103.0	30	98.2	70	99.1	27	100.5	0	----
Americans*	100	97.8	284	97.3	139	98.7	190	96.1	226	99.3	75	100.9	52	103.8
Lithuanians	37	95.5	93	95.7	36	101.5	42	97.8	166	96.4	94	100.0	0	----
Irish	21	94.4	54	95.6	13	99.7	39	96.7	52	94.1	16	96.9	19	98.0
British Cans.	5	93.8	36	91.9	22	95.1	44	91.9	34	96.1	14	97.5	0	----
Russians	4	92.7	33	87.0	12	91.0	20	89.1	20	91.0	1	128.0	0	----
Poles	28	86.1	53	88.7	20	88.8	36	89.0	69	90.9	18	94.3	3	94.5
Greeks	54	84.3	81	87.4	19	88.9	41	88.1	63	89.8	12	92.4	0	----
Italians	61	86.3	118	87.1	24	85.1	40	84.1	88	83.3	19	90.9	0	----
French, Cans.	22	81.9	46	87.3	27	81.7	61	81.1	74	87.7	13	97.0	0	----
Negroes	47	80.6	101	79.1	38	82.7	45	84.1	102	86.1	70	87.6	46	95.0
Portugese	80	76.8	188	84.6	54	77.7	132	80.0	194	86.7	20	99.6	0	----
Dearborn's Stand- ard Amer. Group		96.8		97.0		97.4		99.0		100.6		104.3		105.7

*The "Americans" in Table 23 include 36 children of American-Canadian parentage.

crease of I. Q. grade averages similar to the increases found in the Dearborn Standard Groups. If we subtract the normal increase in I. Q. grade averages from the increases noted among our 12 groups of non-English speaking parentage, there is either but a negligible increase, or no increase at all, or a decrease (Italian) in the I. Q. grade averages as we proceed from the first through the seventh grades.

4. Summarizing, we must conclude from an analytical inspection of our groups by grades that a language handicap in American-born children of foreign parentage is a negligible factor in accounting for the mental differences found to exist among these groups.

Table 24 demonstrates this truth in a simpler and more picturable form than does the preceding table.

TABLE 24

A Comparison of the I. Q. Averages of the Second and Third Grades with the I. Q. Averages of Sixth and Seventh Grades of the 16 Groups and the Dearborn Standard Group

National Group	2nd & 3rd grades	6th & 7th grades	Diff.
	I. Q. averages	I. Q. averages	
Polish Jews	99.6	101.6	+2.0
Swedes	101.7	101.9	+0.2
English	97.0	102.8	+5.8
Russian Jews	97.9	97.5	-0.4
Germans	97.5	99.1	+1.6
Americans	97.3	99.3	+2.0
Lithuanians	95.7	96.4	+0.7
Irish	95.6	94.1	-1.5
British Canadians	91.9	96.1	+4.2
Russians	87.0	91.0	+4.0
Poles	88.7	90.9	+2.2
Greeks	87.4	89.8	+2.4
Italians	87.1	83.3	-3.8
French Canadians	87.3	87.7	+0.4
Negroes	79.1	86.1	+7.0
Portuguese	84.6	86.7	+2.1
Dearborn's Amer. Standard Group	97.0	100.6	+3.6

The 2nd and 3rd, and 6th and 7th grades are used because the numbers of testees in these grades are so much larger than the numbers in other grades.

It is to be noted that 10 of the 11 groups whose parents were born in non-English speaking countries have I. Q. differences between the above noted grades (2nd-3rd and 6th-7th), that are less than the difference found in the Standard Group, and that two of the differences are actually minus.

✓ Continuing our refutation of the "language factor" criticism, one can now go on the offensive and ask what part language has to do with the large mental differences found *within* the groups of children whose parents' languages were non-English? Perhaps one might venture to say that the Teutonic languages are more similar to the English than the Romance or Slavic languages and that therefore the descendants of Swedes and Germans are able to learn English quicker and better. It seems that Tables 23 and 24 fully meet this hypothesis, but in addition it can be overthrown by comparing the mental averages of the Russians and Poles to the mental averages of the Russian and Polish Jews. It would be difficult to maintain that because many Russian and Polish Jews also speak another language (Yiddish) their American-born children receive an aid on intelligence tests that is not accorded Polish and Russian children.

I. Q. averages of children of non-English speaking parentage.

Polish Jews	102.8
Swedes	102.1
Russian Jews	99.1
Lithuanians	97.4
Russians	90.0
Poles	89.6
Greeks	87.8
Italians	85.8
French Canadians	85.3
Portuguese	82.7

The "language factor" criticism has even less weight when the mental differences found between the groups of children of English speaking parentage are considered.

I. Q. averages of children of English speaking parentage.

English	100.7
American	98.3
Irish	95.9
British Canadians	93.8
Negroes	84.6

Off hand, in the English speaking groups, only the Negroes could be hindered by language handicap. Some evidence for this possibility is seen in the supernormal increase of the I. Q. averages for the negroes, in the upper grades.

Lastly, the "language factor" criticism is *hors de combat* when we compare certain of the groups of children who are descendants of parents from non-English speaking countries with groups of children whose parents were citizens of English speaking countries. We shall contrast only the extreme group examples:-

	I. Q. Average
Polish Jews	102.8
Swedes	102.1
Russian Jews	99.5
Germans	98.5
Irish	95.9
British Canadians	93.8
Negroes	84.6

2. *A second criticism concerns the unequal proportion of 8th and 9th grade children in the various groups of testees.* This criticism is based on the fact that a normal increase of four points in the I. Q. scale is found in the 8th grade as compared to the 7th, and one of over five points is found in the 9th as compared to the 7th.

This criticism is met by presenting the I. Q. averages from the 1st through the 7th grades only. The maximum change

then in any I. Q. is 1.8 points, the minimum 0.2, while the rank position of the groups is unchanged.

TABLE 25

I. Q. averages for the various groups from the 1st through 7th grades and contrasting the same with I. Q. averages for the groups from 1st through 9th grades.

National Group	Nos.	I. Q. Ave. for 7 grades	I. Q. Ave. for 9 grades	Diff.
Polish Jews	61	101.0	102.8	1.8
Swedes	183	100.7	102.1	1.4
English	174	99.0	100.7	1.7
Russian Jews	531	98.6	99.5	0.9
Germans	163	98.2	98.5	0.3
Americans	903	97.8	98.3	0.5
Lithuanians	374	96.8	97.4	0.6
Irish	179	95.6	95.9	0.3
British Canadians	141	93.5	93.8	0.3
Russians	89	89.7	90.0	0.3
Poles	206	88.8	89.6	0.8
Greeks	258	87.6	87.8	0.2
Italians	331	85.5	85.8	0.3
French Canadians	230	84.6	85.3	0.7
Negroes	333	82.3	84.6	2.3
Portuguese	651	82.1	82.7	0.6
Dearborn's		approximately	approximately	
Amer. Standard Group		98.5	100.0	1.5

3. *Another criticism has reference to the measuring scale, the fact that three tests were used. A source of error might conceivably arise from the use of different types of examination.*

Unlike the Army tests, there is no great difference in type among the tests we utilized. The Pintner-Cunningham and Dearborn A tests are largely non-linguistic in their nature, while one-half of the parts of the Dearborn C tests are non-verbal in their nature.

In regard to the relationship between the Dearborn A and C examinations the author of these tests states: "We have every reason to believe that the I. Q.'s obtained on second and

third grade children on General examination A are directly comparable with those obtained on fourth to ninth grade children by use of General examination C. The two examinations were standardized in the same classes of schools and in several instances in the same grades of the same school; that is, examination A was first tried from the first through the eighth grade in three of the communities and General examination C, from the second through the twelfth grades in these same communities. These were the towns chosen for the purposes of standardization." Table 26 presents the I. Q. averages we obtained by using Test C on fourth through ninth grade children, Test A on second and third grade children, and the Pintner-Cunningham Test on first grade children. Our results fully confirm Professor Dearborn's statement, and equally defend us from an hypothetical criticism based on the use of several tests. In examining Table 26 we must recall that a small increase in the I. Q. average in the upper grades is normal.

TABLE 26

A Comparison of I. Q. Results on the Basis of Tests Used

National Group	Pintner-Cunningham Test (1st gr.)	Dearborn A Test (2d&3d gr.)	Dearborn C Test (4-9 gr.)
	I. Q. Ave.	I. Q. Ave.	I. Q. Ave.
Polish Jews		99.6	104.0
Swedes	93.3	101.7	102.9
English	95.7	97.0	102.5
Russian Jews	97.7	97.9	100.2
Germans		97.5	99.6
Americans	97.8	97.3	98.8
Lithuanians	95.5	95.7	98.3
Irish	94.4	95.6	96.2
British Canadians	93.8	91.9	94.5
Russians	92.7	87.0	92.3
Poles	86.1	88.7	90.6
Greeks	84.3	87.4	89.4
Italians	86.3	87.1	84.6
French Canadians	81.9	87.3	85.2
Negroes	80.6	79.1	87.1
Portuguese	76.8	84.6	84.5

4. *A last criticism concerns the numbers of testees in certain groups... Especially the groups of Polish Jewish children and Russian children may be said to be too small samples to represent reliably the first generation American-born children of the Polish Jews and Russian immigrants of the period from 1898-1918.*

Much of the weight of this criticism is removed when it is recalled under what specific circumstances our sampling took place. The testees were all first generation American-born children, selected under conditions which reduced all environmental differences and chance factors to a minimum. With the exception of the Negro testees, the same or very similar educational, economic and social environments surrounded the groups of children. It is highly probable that if we had tested as many Polish Jewish children as Russian Jewish children (627), the results would have been the same as were secured on 75 children, for the methods of selection make for high reliability. Likewise, if we had tested as many Russian children as Lithuanians (468), the Russian I. Q. average would have differed very little.

Nevertheless it may fittingly be said that we can draw absolute conclusions only in regard to the children tested, holding with less certainty that these children are typical of the immigrant groups to which they belong. The personal views of the writer are that all of the immigrants are fair samples of the immigrant stock the United States has received from these countries during the period 1898-1918, with two exceptions, the Irish and the Polish groups. It is his *belief* that the samples of these two groups are somewhat higher than the groups themselves, that is, if all the first generation American-born children of school age of these groups had been tested, instead

of *Public School* representatives only, the I. Q. averages of the groups would be somewhat lowered.

In regard to the two non-immigrant groups, the Americans and the Negro samples, a few words should be said.

The 98.3 I. Q. average of the American group, at first sight might seem to be two or three points lower than one would expect, especially since there were a considerable number of 8th and 9th grade children tested. But it must be remembered that these American children were living in the same neighborhoods as the immigrant groups; they came from poorer economic and lower social environments than the average urban American *milieu*. It has been repeatedly found by experiment in the last several years, that there are marked differences in intelligence within different social strata of the same racial or national group. Our American group confirms these experiments.

The Negro group was designedly selected from Public Schools in a Southern city to represent fairly the Negro intelligence of that city. It is highly probable that the intelligence of the 449 Negroes is a fair sample of the urban Negro intelligence of the *South*. The average for the Negro group is undoubtedly much higher than could be scored by a group of Southern Negroes selected in due proportion from the city and rural districts of the South, and it is perhaps some lower than a sample group of urban Northern Negroes.

Lastly, admitting that our subjects fairly represent the immigrant groups to which they belong, the further question remains—do our immigrant groups represent fairly the nations to which they belong? One can ill afford to be dogmatic about such a complex question, yet on the whole investigations have tended to show that our immigrants from 1900 to 1920 were *slightly* sub-representative of their nations. Only in the

case of Italy, however, is this divergence considerable, for most of our recent Italian immigration has been from Southern Italy.

Summary of Chapter V

Part of the data in this chapter demonstrates that no language handicap existed for the American-born children of foreign parentage in the taking of the Pintner-Cunningham and the Dearborn A and C mental tests. The non-existence of a language handicap was shown in several ways: (a) The increase of the I. Q. averages in the upper grades as compared to the lower is no greater than the small normal increase that is found among American-born children of English-speaking parentage. (b) There are great I. Q. differences among non-English National groups. (c) There are great I. Q. differences among English-speaking National groups. (d) Several of the non-English-speaking National groups are mentally much superior to several of the English-speaking groups.

Another section of this chapter is devoted to proving that the I. Q. differences among the National groups are not due to an unfair proportion of subjects of some of the National groups in the upper school grades.

A third part of this chapter shows that the use of three tests does not invalidate our results in any way; and a last section of this chapter has reference to the number of subjects composing each group. The conclusion was reached that the numbers in each group were sufficient, when full consideration was given to the manner in which the subjects were selected.

CHAPTER VI

VOCATION AND INTELLIGENCE

Between the ultra radicals who maintain that there is no positive correlation between ability and economic success, some of whom even affirm that there is a negative correlation, and the extreme conservatives who are firmly convinced that there is an almost perfect positive correlation between economic well-being and ability—somewhere between the two lies the truth.

The nation's unparalleled resources and the unprecedented swiftness in the transformation of our industrial life undoubtedly fosters "luck" success in a small percentage of cases. Yet common sense knowledge and observation assures us that there is some positive relationship between economic success and ability, and the distinctive task of science is to ascertain the *degree* of this relation, and to furnish a proper interpretation of its meaning.

"Ability" is by no means synonymous with intelligence. Certainly temperamental qualities and specific talents are as essential pre-requisites as intelligence for success in most vocations, professions and callings. Hence, one could not expect an extremely high positive correlation between intelligence and economic well-being, or between intelligence and occupation. But it is an interesting and important task to ascertain the degree of relationship between them. Several important investigations and studies have gathered valuable data on these subjects.

The detailed investigations of Professor Terman all reveal a high correlation between intelligence on the one side and economic and social status on the other; indeed his evidence tends to show that intelligence is related to social status as ground to consequent or as cause to effect.

Dr. A. W. Kornhauser, in a paper on "The Economic Standing of Parents and the Intelligence of Their Children," (Journal of Educational Psychology Vol. IX, 1918), gives us evidence that there is a marked association between economic status and school advancement.

Miss A. H. Arlitt divided 191 children of American-born white parents into four socio-economical groups: (1) Professional. (2) Semi-professional and higher business. (3) Skilled labor. (4) Semi-skilled and unskilled labor. Intelligence tests given to them gave the following results: The median I. Q. of (1) was 125; of (2) 118; of (3) 107; of (4) 92.

The present writer, in an experiment upon 336 school children in the first grades of a Public School system, tested by the Otis A primary test, found a $+.51 \pm .0292$ correlation between I. Q. standing and economic status, gauged by a scale measuring economic consumption of necessities and luxuries.

The Army results showed an immense difference of general intelligence among various vocational groups. In order of diminishing intelligence the occupational groups in the Army were classified thus: professions, clerical occupations, trades, partially skilled labor and unskilled labor. A summary of these results is found in "Army Mental Tests" by Yoakum and Yerkes.

The occupation of the fathers* of more than 4200 of our testees was secured by the earnest co-operation of the Public School teachers of these children.

All of the occupations were divided into five great groups. Our scheme of group classification and unit classification is given below:

*The occupation of nearly 100 mothers, who were heads of families was also secured.

1. Professional men—

Doctors, Lawyers, Draftsmen, Musicians, Engineers, Teachers, Ministers and Druggists.

2. Owners and Makers—

Manufacturers, Store-keepers, Real estate dealers, Superintendents.

3. Clerical workers—Small store-keepers and agents.

Printers, Foremen, City Hall Employees, Inspectors, Contractors, Office-workers, Junk dealers, Insurance and other "agents," Grocery, Fruit and Meat store-keepers and Photographers.

4. Skilled and partially skilled labor—

Loom fixers, Molders, Bakers, Tinsmiths, Metal workers, Bleachers, Firemen, Masons, Dye Setters, Metal Spinners, Overseers, Chauffeurs and Truckmen, Tailors, Carpenters, Plumbers, Painters, Shoeworkers, Leather workers, Railroad workers, Paper hangers, Gas workers, General Electric workers, and Skilled Laborers, whose exact occupation was not given.

5. Unskilled Labor—

Motormen and Conductors, Teamsters, Janitors, Laundry workers, Cooks, Housekeepers, odd job workers in factories, Waiters, Day Laborers, Candy Makers, Soldiers and Sailors, Peddlers, Watchmen, "Don't work," and "unemployed."*

Perhaps there is some overlapping in these occupational groups, and on the other hand the five main groups may not be thought to be sufficiently distinctive. In order to avoid these criticisms the I. Q. averages both for the Occupational

*In addition there are 34 Truck Gardeners, and 138 fathers in our list with sundry occupations which did not fall into our five main groups.

Groups and for the Occupational Units are given on the following pages.

TABLE 27

The Relative Intelligence of Occupational Groups.

Occupations	Number in group	I. Q. Average
Professional men	68	102.0
Manufacturers, large store owners, etc.	347	99.0
Small store owners, salesmen, agents, Clerical workers, etc.	264	96.9
Skilled and partially skilled labor	2133	94.4
Unskilled labor	1356	87.3
Truck Gardeners	34	84.9
	<hr/> 4202	

Figure 7 presents the relative intelligence of the children of various occupational groups.

TABLE 28

The Relative Intelligence of Occupational Units.

Occupation	No. in group	I. Q. Ave.
Engineers, Teachers and Ministers	9	108.5
Superintendents	12	105.1
Manufacturers	31	104.8
Draftsmen	14	102.1
Real Estate Dealers	23	101.8
Doctors and Lawyers	25	101.1
Druggists	5	100.8
Musicians	15	100.6
Printers	31	100.1
Insurance agents and "other agents"	31	99.2
City Employees	33	99.0
Paper Hangers	20	98.7
Plumbers	36	98.7
Store keepers (except fruit stands, groceries restaurants)	281	97.9
Tailors	74	97.6
Railroad Workers	91	97.5
Painters	70	97.3
Skilled Laborers (undesignated)	224	97.2
Masons	24	96.5
Molders	39	96.1
Gas Workers	22	95.7
Store-keepers (fruit, grocery or restaurant)	42	95.4
Photographers	15	95.3

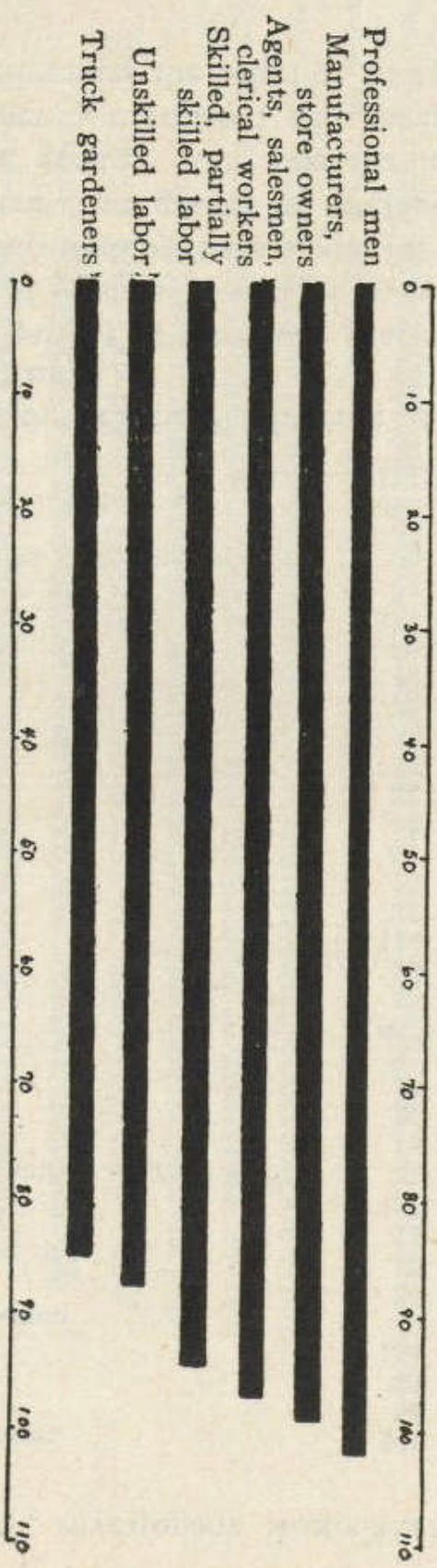


FIGURE VII

General Electric Workers	261	95.0
Housekeepers	54	95.0
Foremen	39	94.5
Carpenters	150	94.3
Chauffeurs and Truckmen	89	94.2
Cooks	34	94.1
Dye Setters	17	94.0
Loom Fixers	54	93.9
Metal Spinners	24	93.8
Motormen and Conductors (street car)	21	93.3
Soldiers and Sailors	18	93.2
Janitors	26	93.1
Peddlers	29	93.1
Tinsmiths	21	93.0
Shoe workers	667	92.8
Metal workers	15	92.4
Waiters	20	92.3
"Don't Work"	144	92.1
Barbers	37	91.4
Factory Overseers	16	91.4
Bakers	64	91.3
Watchmen	14	90.1
Firemen	35	90.0
Candy Makers	16	89.6
Laundry Workers	16	89.5
Bleachers	28	89.1
Teamsters	47	88.7
"Unemployed"	50	88.2
Day Laborers	175	87.2
Leather Workers	55	86.4
Miscellaneous (Unskilled Factory workers)	23	85.1
Truck Gardeners	34	84.9
Cotton and Woolen Mill Workers	699	84.6
Miscellaneous	138	

Figure 8 presents the relative intelligence of the children of various occupational units.

Our data show clearly that there are grades of intelligence among the *children* of parents of various occupational callings, as the Army data evinced by tests upon the workers themselves that there were clear grades of intelligence among the various occupational groups. Can one reasonably state that intelligence is not merely correlated with occupational groupings, but in part determines the selection of the calling of an

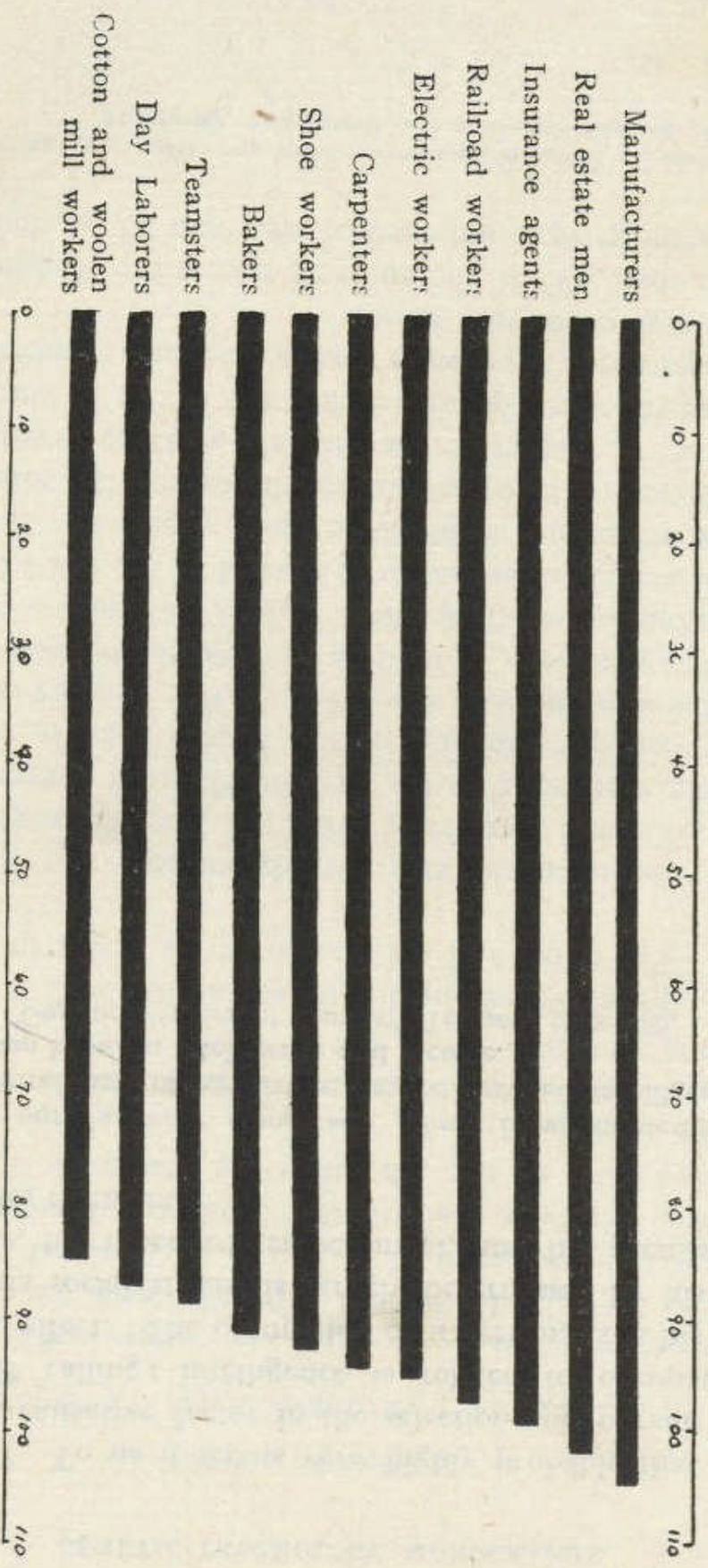


FIGURE VIII

individual? To us it seems very highly probable that intelligence is a causative factor in the selection and pursuit of occupational* calling; intelligence is related to occupation as cause is to effect. The occupation of a person, as is his family life and his social status, is largely determined by his innate intelligence, his inherited temperament, and his peculiar, specific abilities or talents.

*Due to our "growing democracy" there is undoubtedly today a higher correlation of a positive nature between intelligence and vocation than between intelligence and income.

See also "Genetic Studies of Genius," Terman, page 635.

CHAPTER VII

READING TESTS, EFFORT AND INTELLIGENCE

More than seven hundred of our testees were also given "Reading Tests." In the 2nd and 3rd grades the Haggerty I Reading test was employed; in the 4th and 5th grades the Advanced Reading test of the Stanford Achievement test was used; and in the 6th grade the Haggerty III Reading test was used.

Success upon tests of this sort is due to one or more of the following causes:

- (1) Type of teaching the testee has received.
- (2) The effort and application of the testee in his school work.
- (3) Innate mental ability of the subject.
- (4) Testee's familiarity with the English language.

If one assumes that the various National groups received equally excellent training in the Public Schools, the results from the reading tests are due to the functioning of the other three causes. A reading test makes no pretense at discriminating among these three factors, so that we can merely give the actual achievements of several of the National groups, without attempting to attribute these results to one or to another factor or to weigh the results among the three factors. However, in respect to the English speaking groups, the E. Q's* are considerably higher than the I. Q's of these groups. This superiority is probably due to language familiarity rather than to application and effort.

More than 100 of the subjects taking the reading test fell in National groups composed of less than 25, so that we have

*The results from Educational tests are often expressed in terms of E. Q., an abbreviation for Education Quotient.

discarded them; and nearly another 100 testees were children of mixed parentage.

National Group	Numbers	E. Q. Average	I. Q. Average*
Americans	149	101.1	98.1
Russian Jews	129	98.7	99.0
British Canadians	40	97.8	93.0
Greeks	43	90.7	89.5
Poles	60	88.3	89.3
Italians	99	85.7	85.9

*I. Q. average of the testees of the National groups who took both the intelligence test and the reading test.

CHAPTER VIII

ANTHROPOMETRIC CHARACTERISTICS AND INTELLIGENCE

The Racialists maintain not only that the Nordics are long-headed, tall people with blue eyes and light hair, but more importantly it is claimed that they are mentally superior to all non-Nordic races.

The relationship of intelligence to anthropomorphic* characteristics is so important and interesting that we resolved to obtain some such data while giving the group intelligence test. The author would keep classes a few minutes after the intelligence test had been completed, and mark upon the test papers symbols signifying certain hair and eye coloration combinations.

Hair and eye coloration** were selected as the anthropomorphic characteristics, because they were most easily securable and are at the same time distinctive and significant and are relatively independent of environmental influences.

The symbols employed were: L, M and D for Light Hair, Medium Hair (brown or chestnut) and Black Hair respectively; and A, B and C for Blue Eyes, Gray or Hazel Eyes, and Brown or Black Eyes respectively. Thus all of the nearly 3000 mental subjects upon whom the Anthropomorphic characteristics were secured fell into nine types or classes:

1. Light Hair and Blue Eyes (L. A.)
2. Light Hair and Gray or Hazel Eyes (L. B.)

*I am indebted to Prof. Wm. McDougall for the suggestion to secure anthropomorphic data on the same children who had received Intelligence Tests.

**Complexion is too greatly modified by external factors to be of much significance, while the Cephalic Index under the circumstances, could not be taken.

3. Light Hair and Brown or Black Eyes (L. C.)
4. Brown or Chestnut Hair and Blue Eyes (M. A.)
5. Brown or Chestnut Hair and Gray or Hazel Eyes (M. B.)
6. Brown or Chestnut Hair and Brown or Black Eyes. (M. C.)
7. Black Hair and Blue Eyes (D. A.)
8. Black Hair and Gray or Hazel Eyes (D. B.)
9. Black Hair and Brown or Black Eyes. (D. C.)

However, in dividing nearly 3000 testees into sixteen National groups, and then subdividing each of these groups into nine sections on the basis of anthropomorphic "Type,"* we found our numbers in many cases to be too small for consideration.

For the immediate and specific purpose of discovering whether Race, as embodied in anthropomorphic characteristics, is responsible for the large mental differences among our National groups, we regrouped the nine types into three, by adding Types 1 and 2 together to form one Type, the Blond; by adding Types 3, 4, 5, 6, and 7 together to form a second Type, the Mixed Type; and by adding Types 8 and 9 together to form a third Type, the Brunette.

Now if the Racial (instead of the Natio-Racial) hypothesis is true, the differences in intelligence among the National groups must be shown to be due to a marked superiority of one Type to another *within* a National group, and the consistency of this superiority *among* other National groups must be shown. The intelligence of one "Type" must also be shown to deviate little on the I. Q. scale among the National groups.

*We are using Type as a special combination of hair and eye qualities.

TABLE 29

Comparison of the Intelligence of the Blond,* Mixed and Brunette Types *within* and *among* National groups.

National Group	Blond Type			Mixed Type			Brunette Type		
	Nos.	I.	Q. Av.	Nos.	I.	Q. Av.	Nos.	I.	Q. Av.
Americans	73		98.9	377		98.4	158		95.6
English	15		106.2	68		101.9	20		100.3
British Canadians	6		96.0	54		97.5	34		91.6
French Canadians	3		86.0	31		86.1	24		85.5
Germans	9		101.1	16		99.6	3		92.0
Greeks	3		81.0	56		88.3	152		86.2
Irish	4		112.5	51		93.3	79		83.8
Italians	3		84.6	70		85.1	184		84.1
Lithuanians	93		99.0	102		101.1	11		95.6
Poles	43		91.4	91		89.2	25		95.9
Polish Jews	2		95.0	15		103.6	18		97.5
Portuguese	0		00.0	29		82.3	74		82.2
Russians	7		91.0	31		93.8	12		95.3
Russian Jews	11		100.6	170		97.9	198		98.8
Scotch	0		00.0	25		102.0	10		107.8**
Swedes	73		102.4	53		101.8	4		95.0
	345		***	1239		***	1006		***

If the Racial hypothesis be true, then the great I. Q. differences should be found by examining Table 29 horizontally.

If the Natio-Racial hypothesis be true, then the great I. Q. differences should be found by examining Table 29 vertically.

The great I. Q. differences *are* found by examining Table 29 vertically.

*The Blond Type corresponds to the physical qualities possessed by the ideal Nordic; the Brunette Type to the Mediterranean; the Mixed Type not only includes the physical qualities that the ideal Alpine possesses but also hair-eye combinations that correspond to the physical qualities that have resulted from the intermarriage of the three great Races.

**The counties of Southwestern Scotland contain a population which has the tallest people in Europe, although they are dark in coloration. For this unusual combination of physical qualities see Ripley's "Races of Europe," pages 328-329.

***The averages for each of the three Types for all the National groups is not given because such averages would be due to the relative number of subjects from a National group and would not be an index of Type Intelligence.

In other words to prove the Racial hypothesis one "Type" should be (1) markedly superior in intelligence to other "Types," (2) this superiority should be consistent; that is, it should be found among all the National groups and not in a few of them, and (3) the I. Q. rating of the "Type," and of both the other Types should vary little among the National groups.

Let us examine Table 29, by first inspecting it horizontally, that is, by rows; this will enlighten us as to propositions (1) and (2) above.

We see that the I. Q. differences among the three "Types" *within* a National group are consistently small. The minimum difference is 0.6 of a point on the I. Q. scale, in the case of the French Canadians, the maximum difference is 6.7 points on the I. Q. scale in the case of the Poles. In the case of the American group, where the number of subjects under each "Type" is greater, the maximum difference in I. Q. among the "Types" is 3.3 points. It is also to be observed that there is *no* consistency in the intellectual superiority of any "Type"; with the English the Blond Type is superior, the Mixed Type is intermediate, the Brunette type lowest; with the Poles the Brunette Type is superior, the Blond Type intermediate and the Mixed Type is lowest; with the Lithuanians the Mixed Type is superior, the Blond Type is intermediate and the Brunette Type is lowest; with the Russians the Brunette Type is superior, the Mixed Type intermediate, the Blond Type is lowest, etc.

Now let us examine Table 29 by columns, that is, vertically to see if the I. Q. ratings vary insignificantly, as they should on the basis of the Racial theory. The contrary is true. The I. Q. range within the "Blond Type" but among the National groups is 14.8 I. Q. points; the lowest National group I. Q.

average being 91.4 for the Poles (if we exclude the Russians because of their small numbers), the highest being 106.2 for the English.

The I. Q. range within the "Mixed Type" among the National groups is 21.3 I. Q. points; the lowest National group I. Q. average being 82.3 for the Portuguese, the highest being 103.6 for the Polish Jews.

The I. Q. range within the Brunette Type is 25.6 I. Q. points; the lowest National group again being the Portuguese with an I. Q. average of 82.2, the highest being the Scotch, whose average is 107.8.

The mean of the ranges for the Blond, Mixed and Brunette Types is 20.5 I. Q. points.

It is worth while noting that in Chapter IV the range of the I. Q. for the National groups was 20.7 points; that is, the mean range of the I. Q's on the basis of Anthropomorphic Type is very close to the range of the I. Q's on the basis of National group divisions.

Summarizing our finding on this section of the present Chapter:

1. The I. Q. differences *within* a National group, on the basis of Type are small and inconsistent.
2. The I. Q. differences *among* National groups, on the basis of Type, are great.
3. The I. Q. range of the National groups is very similar to the range of each of the Anthropomorphic Type groups.

That is, the I. Q. range within the Blonde Type is similar to the I. Q. range among the National groups; the I. Q. range within the Mixed Type is similar to the I. Q. range among the National groups; and the I. Q. range within the Brunette Type is similar to the I. Q. range among the National groups.

The sum and substance of all this is—blondes are of superior intelligence only if they belong to certain National groups, and if they belong to certain other National groups, the opposite is true. The Mixed type is of superior intelligence only when it belongs to certain National groups, and when it is found in certain other National groups, it is of inferior intelligence. The Brunette type is of inferior intelligence only when it is found among inferior National groups; when found among the Scotch, English and Jews, it is of high intelligence.

4. The data presented in Table 29, together with the data shown in Tables 1-22 demonstrate that intellectual differences although (1) significant, (2) innate and (3) relatively permanent are Natio-Racial in character rather than Racial.

A criticism might be put forth that true Type differences in intelligence have been unintentionally covered up by dividing our Types into only three instead of the original nine groups, and by then subdividing the three Types into sixteen groups on the basis of National divisions.

In order to meet this sort of criticism Table 30 is presented; but it must be recognized that in eliminating the National divisions we are neglecting trenchant facts that appear in Table 29; such facts as the great mental difference among the Brunettes and quasi-Brunettes of English, Scottish and Russian (Jewish) descent on the one hand, and French Canadian, Italian and Portuguese on the other. That is, if most of our 858 subjects of Type 9, Table 30, were descendants of English, Scotch and Russian Jewish forebears, with their same hair and eye coloration, their I. Q. average would have been seven or eight points higher on the I. Q. scale.

TABLE 30
A Comparison of the Intelligence of the nine Types
without regard to National groups

Type of Coloration	Nos.	I. Q. Av.
1. Light Hair and Blue Eyes	232	98.6
2. Light Hair and Gray or Hazel Eyes	157	98.1
3. Light Hair and Dark Eyes (Brown or Black)	26	92.9
4. Medium Colored Hair and Blue Eyes (Brown or Chestnut)	413	97.0
5. Medium Colored Hair and Gray or Hazel Eyes	456	96.7
6. Medium Colored Hair and Dark Eyes	384	94.0
7. Black Hair and Blue Eyes	165	94.6
8. Black Hair and Gray or Hazel Eyes	218	94.4
9. Black Hair and Dark Eyes (Brown or Black)	858	90.6

Three additional points are to be observed from Table 30:

(1) Of the 2909 subjects only 1090 are either Blonds or Brunettes. Sixty-two per cent of the subjects are various sub-Types of the groups we have designated as "Mixed Type." This data is in conformity with Professor Ripley's findings in "Races of Europe," pages 68-77. (2) Of the *six* anthropomorphic* characteristics, "Dark Eyes" seems to have the most constant association with I. Q. rating, for Types 3, 6 and 9 are the lowest Types in intelligence and the only constant factor in them is "Dark Eyes." Again it must be stressed that if we had secured most of our testees of Type 9 from English, Scotch and Russian Jewish parentage instead of from Portuguese, French-Canadian and Italian, then even "Dark Eyes" would have had a high I. Q. rating. (3) It is to be observed that the maximum difference in intelligence on the I. Q. scale is only 8 points in Table 30, whereas the maximum difference was 20.1 when we were considering National I. Q. differences.

The material that best demonstrates the futility of appealing to Racial mental differences is seen in our anthropomorphic

*The author was able also to secure the cephalic index of 109 of the Polish children and 79 of the Swedish children. The average Cephalic Index of the Poles was 83.7; of the Swedes 78.2.

data on Americans. There are sufficient numbers in eight of the nine Types of Americans to have statistical weight.

TABLE 31

American Types	Nos.	I. Q. Av.
1. Light Hair—Blue Eyes	47	99.1
2. Light Hair—Gray or Hazel Eyes	26	98.6
3. Light Hair—Black Eyes	7	
4. Medium Colored Hair—Blue Eyes	139	99.6
5. Medium Colored Hair—Gray or Hazel Eyes	91	96.7
6. Medium Colored Hair—Dark Eyes	80	100.4
7. Black Hair—Blue Eyes	60	96.6
8. Black Hair—Gray or Hazel Eyes	46	94.6
9. Black Hair—Dark Eyes	112	96.0
	<hr/> 608	

Four points are especially to be noted:

(1) The extreme range of I. Q. difference is only 5.8 points and this range lies between Types 6 and 8, neither of which is a pure Type, and both of which are far removed from the ideal Nordic association of characteristics.

(2) The extreme type of mental difference between the ideal Nordic Type (1) and the ideal Mediterranean Type (9) is only 3.1 points on the I. Q. scale.

(3) The extreme range of mental difference between the ideal Nordic Type and the ideal Alpine Type (5) is only 2.4 points on the I. Q. scale.

(4) The ideal Nordic Type is surpassed in intelligence by two Types (4) and (6), both Types of which are Mixed Types. These Types are biologically the blend of Nordic and non-Nordic elements.

(5) The substance of the preceding four points can be stated thus; the mental differences of Americans on the basis of Type are small and overlapping; the Types that show a small mental superiority are Mixed Types.

Hence the important differences in intelligence within the American Nation are not Racial differences but are exactly the same differences in intelligence that exist among the various Natio-Races that at present compose it.

Summary of Chapter VIII

The correlation of anthropomorphic characteristics and intelligence is discovered to approach zero. Within one National group the Blond Type is superior to the Mixed and Brunette Types; within a second National group the Blond Type is definitely mentally inferior to the other two Types; within a third National group the Blond Type is intermediate and the other two Types have changed places, etc. This fluctuation of the relative position of Type is probably due to the fact that the I. Q. differences within a National group are very small, always being but a few points on the I. Q. scale.

On the other hand, the I. Q. difference within a Type, say the Brunette, but among National groups, is very large; for example, in the case of the Brunette Scotch and the Brunette Portuguese the I. Q. difference is 25.6 points. The unavoidable conclusion to be drawn is that National or Natio-Racial differences in intelligence are great and consistent, but that Racial differences in intelligence, as discovered from anthropomorphic characteristics, are insignificant, inconsistent and confusing.

The anthropomorphic data on American children reaffirm the preceding conclusions. The differences in intelligence within the American group of children, on the basis of Types, are small, and the slight mental superiorities rest with Mixed Types.

The conclusion of this chapter again is that significant mental differences are Natio-Racial in character rather than Racial.

PART II

THE MEANING OF NATIO-RACIAL GROUPS, THEIR FORMATION AND DEVELOPMENT

CHAPTER IX

COMPARISON OF SOME OF OUR NATIONAL GROUP DIFFERENCES WITH SOME OF THE RESULTS FOUND IN "A STUDY OF AMERICAN INTELLIGENCE"

It is fortunate that eleven of our sixteen National groups are also found among the groups tested in the Army, the results of which are found in Professor Brigham's work. "A Study of American Intelligence." Of our other five groups, the Polish Jews, the Russian Jews, and the Lithuanians were included under "Russians" in his work. Professor Brigham's data do not include French Canadians or Portuguese. With these exceptions, we can compare the mental abilities of our American-born representatives with the mental ratings of the immigrants themselves. We have previously demonstrated that the hypothesis of a "language factor" operating as a handicap on the I. Q.s of the American-born children of non-English speaking parents was not valid. Now our problem is to see if a language difficulty existed which handicapped the immigrant groups when they were examined in the United States Army.

To compare the Army results with our own, we must translate our I. Q. ratings into "Mental Ages." The Mental Ages of the National groups tested in the Army are given on page 124 in "A Study of American Intelligence."

To translate our I. Q. ratings into "Mental Ages" we are relying on the constancy of the I. Q.* and we are accepting

*The present writer has retested several hundred children during the last five years and has found a high degree of constancy of the I. Q. These results will be published in the near future.

for the time Professor Dearborn's statement that the average age of Mental Maturity is 14 years, 6 months.

The following Table 32 gives a comparison of the "Mental Age" rating of nine groups of immigrants with first generation American-born children of these groups.

TABLE 32

Comparison of nine of the Army National groups with nine of our National groups on the basis of "Mental Ages"

National Group	Army Mental Ages	Mental Ages of Our Groups
English	14 yrs. 2 mos.	14 yrs. 7 mos.
Germans	13 yrs. 5 mos.	14 yrs. 3 mos.
British Canadians	13 yrs. 3 mos.	13 yrs. 7 mos.
Swedes	13 yrs. 0 mos.	14 yrs. 10 mos.
Irish*	12 yrs. 2 mos.	13 yrs. 11 mos.
Greeks	11 yrs. 11 mos.	12 yrs. 9 mos.
Russians	11 yrs. 6 mos.	13 yrs. 0 mos.
Italians	11 yrs. 2 mos.	12 yrs. 5 mos.
Poles*	11 yrs. 0 mos.	13 yrs. 0 mos.

The most significant points to be observed in Table 32 are: (1) the lessening of the differences between the English and the non-English Nationalities, from a Mental Age difference of 2 years, 2 months, to 1 year, 3 months. We can fairly and safely state that from 30 to 40 per cent of the mental differences between the English and the combined non-English speaking groups as tested in the Army were due to a language handicap, the balance being a genuine mental superiority for our English immigrants over the *combined* non-English speaking immigrants. (2) The significant, persisting differences among the groups of American-born children

*Most of the increase in the Mental Age of the Irish children is probably due to the fact that they were all found in the *Public* Schools; and some of the increase of the Polish children is also due to this cause, while part of it is to be attributed to a language handicap that the American Soldiers of Polish origin suffered, as is shown later in this chapter.

of the nine Nationalities noted, despite the elimination of a language handicap.

In addition to the nine National groups used in Table 32, we have two other groups in common with Professor Brigham's data, white Americans and Negroes. Using the Spearman Rank correlation formula, we find a $+.85$ correlation between the ranking of these eleven groups on the "Combined Scale" rating as compared to their standing on the I. Q. scale.

The general agreement between the Army results based on National groups and our National groups shows that the "language factor" hypothesis cannot account for most of the differences found to exist among the National groups in the United States Army; and we have previously demonstrated that this hypothesis has no validity whatsoever when one considers the mentality of the *American-born children* of immigrants.

Our results have tended to support Professor Brigham's data on mental differences among National groups of immigrants. Further interesting data showing the decline in Intelligence of American immigrants in each five year period of immigration subsequent to 1898-1902 is lucidly presented in "A Study of American Intelligence." Linguistic, educational and "the extent of Americanization" criticisms, accounting for the differences among these groups of immigrants, based on five year periods of residence in America, were considered, and to a great extent refuted. But our agreement with Professor Brigham's study ends here. To base the differences among the National groups, and the differences among the groups of immigrants divided on the basis of five year periods of residence in the United States, upon *Racial* differences is both gratuitous and contradictory

to the *figures* on our immigration and the estimates of Racial blood it contained, as offered by Professor Brigham himself.

In the remainder of this chapter, we shall prove that by using Professor Brigham's own Tables of Immigration* (especially Table No. 8, page 113 of his book), and even temporarily adopting his own speculative estimates of the proportions of Nordic, Alpine and Mediterranean blood in each of the European countries, (Table No. 35, page 163 of his book), we discover that the decline in the level of intelligence of American immigrant groups, on the basis of five year periods, cannot be due to a decline in the proportion of Nordic immigrants and an increase in the proportion of all non-Nordic stock. For the exact opposite is true as we proceed from the period 1898-1902 to 1903-1907 to 1908-1912 to 1913-1917; and we shall show conclusively that the decline of the average mentality of the groups of immigrants in succeeding five year periods is not due to Racial differences within these groups but (as we have shown in the earlier portion of this chapter) to (1) a language handicap (2) a poorer sample of immigrants from the European countries and (3) a change in the proportions of immigrants from the various *Nations*, especially the decline in Swedish, Norwegian, German and Irish immigration and the great increase in Canadian immigration (from 0.2 in 1898-1902 to 13.5 in 1913-1917). Then in a later chapter we shall present, amplify and defend the thesis that the functioning, analyzable and important differences in intelligence, in temperament, in emotions and in character, the differences that are vital in World affairs, are inherent National differences in psychological constitution. In other

*The possibility of this line of criticism of Professor Brigham's book and the inapposite nature of his conclusions was first pointed out to me by Mr. Alfred Starr.

words there are inherent and significant differences among the World's inhabitants, but they are *Natio-Racial* or Sub-Racial, and not Racial.

We request the reader to examine very carefully pages 89, 91, 102, 113, 114, 159 and 198-199 of "A Study of American Intelligence" before considering the following rationale.

1. The group of immigrants coming prior to 1898 cannot be compared to the four succeeding groups, based on the five year periods: 1898-1902; 1903-1907; 1908-1912; 1913-1917, because, (a) the "over 20 year" period is not a five year period and cannot be treated as such. (b) Examining pages 89 and 91 we are shown that the mental difference between the "over 20 year" group and the 16 to 20 year group is hardly significant, the difference between these groups being only three times the probable error of the difference. (c) On page 102 we are shown that there is an actual decrease in the mental rating of the "over 20 year" group when tested by the non-linguistic Beta test.

These three reasons permit us to eliminate the "over 20 year" group from further consideration in the comparison of our immigrants on the basis of five year periods of residence in the United States.

2. Turning to pages 113 and 114 (of his volume), if we for the moment consider the countries listed there as either Nordic on the one hand, or Alpine and Mediterranean on the other (the old Northern and Western Europe versus Southern and Eastern Europe) it can be determined by simple addition that instead of a decrease in the proportion of Nordics in our immigration in each period subsequent to 1898-1902, there was a *greater* percentage of Nordics in each period than in the period 1898-1902; on the other hand there was a greater percentage of Alpine and Mediterranean blood in the

period 1898-1902 than in any other succeeding period; and there is a progressive decrease in the proportion of these bloods in each succeeding five year period. That is, *if* we are able to explain the decrease in intelligence in each group of immigrants on the basis of Race, we must state that the increase in proportion of Nordic blood after 1902 was the cause of the decline in the intelligence of our immigrants. Of course we regard this hypothesis as untenable, and as far from the truth as is the Nordic hypothesis.

TABLE 33

A presentation of proportions of our total immigration coming from countries predominatingly "Nordic" during periods roughly corresponding to the five years of residence groups

	1898-1902 16 to 20 yrs.	1903-1907 11 to 15 yrs.	1908-1912 6 to 10 yrs.	1913-1917 0 to 5 yrs.
England	2.6	4.6	5.1	3.7
Scotland	0.5	1.4	1.8	1.0
Holland	0.4	0.5	0.8	0.6
Denmark	0.8	0.8	0.7	0.7
Sweden	4.6	2.8	2.0	1.5
Norway	2.4	2.3	1.5	1.1
Belgium	0.3	0.5	0.5	0.5
Total, without Canada	11.6%	12.9	12.4	9.1
Canada	+0.2	+0.6	+6.0	+13.5
Total Nordic in- cluding Canada	11.8%	13.5	18.4	22.6

It is to be noted that in excluding Canada from countries that are predominatingly Nordic there is nevertheless a greater proportion of Nordic blood in 1903-1907 than in 1898-1902; likewise in 1908-1912 than in 1898-1902.

When Canada is included there is a progressive increase in proportion of Nordic blood from 1898-1902 through 1913-1917.

TABLE 34

A presentation of the proportions of our total immigration coming from countries predominatingly "non-Nordic" during periods roughly corresponding to five years of residence groups

	1898-1902 16 to 20 yrs.	1903-1907 11 to 15 yrs.	1908-1912 6 to 10 yrs.	1913-1917 0 to 5 yrs.
Germany	4.8	4.0	3.5	2.5
Ireland	7.2	3.8	3.3	2.4
Austria	23.6	24.9	21.8	16.7
Turkey	0.7	1.9	3.4	2.6
Greece	1.1	1.8	2.5	3.7
Russia	17.8	18.3	18.3	17.8
Italy	25.8	23.7	20.2	20.0
	<hr/>	<hr/>	<hr/>	<hr/>
"All others"	81.0 +7.2	78.4 +8.1	73.0 +8.6	65.7 +11.7
	<hr/>	<hr/>	<hr/>	<hr/>
Total non-Nordic	88.2	86.5	81.6	77.4

It is to be noted that there is a progressive decline in the proportions of immigrants coming from countries that are predominatingly Alpine and Mediterranean in the five year periods succeeding 1898-1902.

When "all others" are included the progressive decline in the proportions of non-Nordic blood remains.

3. Still holding our attention to page 112 of "A Study in American Intelligence," let us turn to Table No. 33, page 159 of that volume where Professor Brigham's estimates of the proportion of Nordic, Alpine and Mediterranean blood in each of the European countries are published.

Our own Tables 33 and 34 gave us the proportion of Nordic and non-Nordic blood in our immigrant groups without considering the proportion of Nordic, Alpine or Mediterranean blood within a country. We shall now utilize for the purpose

at hand, Professor Brigham's estimates of the blood *within* a country, and discover what proportion of Nordic versus Alpine and Mediterranean blood entered the United States in the five year periods 1898-1902; 1903-1907; 1908-1912; 1913-1917. We shall again see that there was a higher proportion of Nordic blood in 1913-1917 than in 1908-1912; a higher proportion of Nordic blood in 1908-1912 than in 1903-1907, and a higher proportion of Nordic blood in 1908-1912 than in 1898-1902.

TABLE 35

Proportion of Nordic blood in the five year immigrant groups, as based on Professor Brigham's estimate of the per cent of blood in each of the European countries

	1898-1902	1903-1907	1908-1912	1913-1917
England	2.080	3.680	4.080	2.960
Scotland	0.425	1.190	1.530	0.850
Holland*	0.264	0.330	0.528	0.396
Denmark	0.680	0.680	0.595	0.595
Sweden	4.600	2.800	2.000	1.500
Norway	2.160	2.070	1.350	0.990
Belgium	0.180	0.300	0.300	0.300
Germany	1.920	1.600	1.400	1.000
Ireland	2.160	1.140	0.990	0.720
Austria	2.360	2.490	2.180	1.670
Russian	0.890	0.915	0.915	0.890
Italy	1.290	1.185	1.010	1.000
Greece	0.000	0.000	0.000	0.000
Turkey	0.000	0.000	0.000	0.000
<hr/>				
Total Nordic blood without Canada	19.009	18.380	16.878	12.871
Canada	0.12	0.360	3.600	8.100
<hr/>				
Total Nordic blood	19.129	18.740	20.478	20.871

*Prof. Brigham fails to give the proportion of Nordic and non-Nordic blood in Holland. We shall tentatively assume that it is 66% Nordic.

TABLE 36

Proportion of Alpine and Mediterranean blood in the five year immigrant groups, as based on Professor Brigham's estimate of the per cent of blood in each of the European countries

	1898-1902	1903-1907	1908-1912	1913-1917
English	0.520	0.920	1.020	0.740
Scotland	0.750	0.210	02.70	0.150
Holland	0.132	0.165	0.264	0.198
Denmark	0.120	0.120	0.105	0.105
Sweden	0.000	0.000	0.000	0.000
Norway	0.240	0.230	0.150	0.110
Belgium	0.120	0.200	0.200	0.200
Germany	2.880	2.400	2.100	1.500
Ireland	5.040	2.660	2.310	1.680
Austria	21.240	22.410	19.620	15.030
Turkey	0.700	1.900	3.400	2.600
Greece	1.100	1.800	2.500	3.700
Russia	16.910	17.385	17.385	16.910
Italy	24.510	22.515	19.190	19.000
Total without Canada	73.119	72.915	68.514	61.923
Canada	0.080	0.240	2.400	5.400
Total Alpine and Medi-Terranean blood	73.199	73.155	70.914	67.323

4. Tables 35 and 36 demonstrate that the decline in the intelligence of immigrant groups coming to America after the period 1898-1902 *cannot* be accounted for on the basis of a decline in the proportions of Nordic blood and a corresponding increase in the proportions of Alpine and Mediterranean blood. Indeed, as we have seen, *if* race explained the decline in intelligence, we would be compelled to affirm on the basis of *figures* that the cause for it was the *decrease* in the proportions of Alpine and Mediterranean blood in each five-year period from 1898-1917. Of course this hypothesis is no more necessary to account for the decline, nor is it more tenable, than the Nordic theory.

In analyzing Tables 35 and 36 we see there is a steady decline in the proportions of Swedish, Norwegian, German, Irish, and Italian immigration as we proceed from 1898-1902 to 1913-1917, and an increase in the proportion of Greeks, Turks, "all others," and especially Canadians; the latter increased their proportion of the entire immigration from 0.2% to 13.5%.

This marked change in the national or quasi-National proportions of our immigrants accounts for a deal of the decline in American intelligence, but certainly this cause by itself is not sufficient, for the striking decline in intelligence of the 1903-1907 group of immigrants saw an increase of Canadian* immigration of only 0.4%. We must affirm then that a language handicap, and perhaps a poorer sample of the stock of the European countries, in addition to the change in the National proportions of our immigrants caused the decline in American intelligence from 1898 to 1917.

Summary of Chapter IX

The first portion of this chapter contains a comparison of the average mental age of nine of our National groups with the average mental age of these same groups as tested in the Army. Our English and British-Canadian groups have mental ages that are five months and four months higher respectively than these groups secured in the United States army; all the other National groups had a much greater increase in mental age. The lowest increase among the other groups was the Germans, who averaged ten months higher; the highest increase was scored by the Swedes, who rated twenty-two months

*We must recall that the British Canadian I. Q. average is not only lower than the German but also lower than the Swedish, the Jewish and the Lithuanian, when the language handicap of these groups is removed.

higher. We discovered that at least 30 per cent of the mental differences between the English and the non-English speaking groups in the United States army was due to a language (and perhaps in part emotional) handicap, but that the balance of the difference was due to a genuine superiority of the English speaking group in the United States army as compared to the combined non-English speaking groups. The first portion of this chapter also shows that the significant mental differences among the *National* groups are innate and relatively persistent.

We then turned to Professor Brigham's hypothesis which explains these National mental differences on the basis of Race, that is, upon the mental superiority of the Nordics.

By using Professor Brigham's own figures, we demonstrated that the proportion of Nordic blood in our immigration was greater in the five year periods 1908-1912 and 1913-1917 than in the period 1898-1902, and during the same time (1898-1917) there was a progressive decline in the proportion of Alpine and Mediterranean blood in each five-year period succeeding 1898-1902.

Having demonstrated that Race could not account for the decline in the average intelligence in our immigrant groups, based on five-year periods, we carefully inspected our own Tables 35 and 36 and saw that there was a change in the proportions of immigrants coming from certain countries, especially a tremendous increase in the proportion of Canadian immigration. This marked change in the National and quasi-National proportions of our immigrants accounts for a deal of the decline in American intelligence. The first portion of this chapter has already demonstrated that language was a handicap to some extent on the immigrants examined in the United States army. This demonstrated language handicap was a second cause for the decline in American intelligence. Perhaps

also a somewhat poorer sample of the European countries contributed a part to the decline in intelligence.

We can conclude this chapter by affirming that Race played no part in the decline of American intelligence in the five-year periods succeeding 1898-1902, but that changes in the Natio-Racial proportions of our immigration played some part.

CHAPTER X

THE NATIO-RACIAL HYPOTHESIS

Since this volume is an experimental study, too much attention and space should not be given to a somewhat speculative subject and field. Yet all the data that have been presented seem to us to lend themselves to but one interpretation; so that a chapter devoted to the unification, amplification and interpretation of our data is warranted. The amplification and interpretation of these can be presented best by first exhibiting the limitations, the contradictions and the abstractness of the Racial hypothesis; then by showing the greater implications, the marked consistency, the applicability and the richness of the Natio-Racial hypothesis.

The Racial theory is a very recent one. The modernity of the idea of the importance of Race is brought out by Lord Bryce in his lecture on "Race Sentiment as a Factor in History." In this work he concludes that Race consciousness has had little effect upon the contact and conflicts of peoples. These contacts and conflicts have most generally been National. People have fought for God and King, for the commercial supremacy of their state, for mere conquest, for land and booty, but rarely because of racial antipathy or racial unity. The history of the Greeks, Phoenicians, Jews and the Iranian Persians and Turanian Tartars may seem exceptions, but later in this chapter it will be shown that the conflicts these people waged because of "racial motives" are precisely what we mean by Natio-Racial motives.

The conception of Race is not merely modern, but for the most part this conception has been confined to anthropomorphic affinities and differences. The vast amount of scientific work that has been performed in Anthropology during the

last century has been largely devoted to the discovery of physical similarities and divergencies. Intellectual, temperamental and emotional differences, and apparently innate distinctions in the make-up of character and the entire Psyche of individuals and countries have been minimized; or if these mental traits have been given weight, the scientist has suddenly ceased to be such, and has become a propagandist for *Natio-Racial** and *National interests*. Race is still used, but as a decoy; for other Nations of similar Racial blood are as much belittled as if they were of different species.

But even within the narrow confines of physical affinities and differences, the *majority* of subjects in no European country, nay, even no large section of Europe shows an invariable association of physical traits into a Type that ideally represents any one of the three European Races. The Nordic Race should be represented by long-headed individuals of very light hair, with blue eyes, who are tall of stature. The Alpine Race should be represented by round-headed individuals, with brown or chestnut hair and gray or hazel eyes, who have medium stocky statures. The Mediterranean Race should be represented by long-headed individuals, with very dark brown or black hair and dark eyes, who have medium slender statures. But nowhere is the ideal association of traits realized. When the *four* physical traits just enumerated (cephalic index, hair coloration, eye coloration and stature) are sought in a people, only a very *small* per cent of them have the ideal Racial association of traits. When only *two* traits have been empirically investigated, as by the Anthropological Committee in the British Isles, it was found "that over twenty-five percent of the persons measured have fair eyes and dark hair, in other words,

*Especially H. S. Chamberlain in his "Foundations of the 19th Century."

that the hair and eyes do not accompany one another in type. Of nearly five hundred students at the Institute of Technology, sixty-five per cent were of this mixed type. Even among the Jews, Virchow found less than forty per cent characterized by the same tinge of hair and eyes. In parts of Russia the proportion of pure type is scarcely over half; in Denmark, less than forty per cent were consistently pure.”*

When we turn to investigate the association of hair coloration and stature, even less a degree of association is discovered. While blondness and tall stature go most often together in the British Isles, in parts of Brittany, in Savoy and in Württemberg, the contrary is true in Bavaria, in Baden, along the Adriatic, in Poland, in upper Austria and among the American soldiers of European origin observed during the Civil War.* Even when only two physical traits are considered, “we cannot expect more than one-third of the people will be marked by this** simplest combination of traits. We need not be surprised, therefore, that if we seek to add a third characteristic, say the shape of the head, to a normal combination of hair and eyes, we find the proportion of pure types combining all three traits in a fixed measure to be very small indeed. Imagine a fourth trait, stature, or a fifth, nose, to be added, and our proportion of pure types becomes almost infinitesimal.”***

These quotations are cited for two reasons (1) to show that even on the physical anthropological plane Races and Racial differences *do not exist* as they are defined by anthropomorphic characteristics and (2) to show that anthropological investigations have confirmed the theses of historians, geo-

*Quoted from Ripley's "Races of Europe," pages 65 and 107.

**The word "this" was substituted for the word "the."

***Ripley, "Races of Europe," page 107.

graphers and archeologists that the migrations and resulting intermarriages of European Races during the last three thousand or thirty-five hundred years have so blended the three Races which existed in relative purity and isolation at that time, that today in no part of Europe, Sweden included, is there even approximately a Race in the sense that the Racialists have alleged.

Causes other than Race in Europe have tended to obliterate the physical differences that once existed among the three Races of Europe, causes that are psychological in nature and mental in their effects. The influences of a general continental culture, the results of the mental and physical interpenetrations of peoples, variations and mutations, the creation of standards, and new sets of values erected by geniuses, and the probable inheritance of acquired characteristics, have all tended to demolish Racial or anthropomorphic difference, but at the same time have tended to create and foster innate mental and innate temperamental and emotional differences. That is, the general tendency of civilization and culture in Europe for the last three thousand years has been to destroy Races, but to form Natio-Races; to obliterate by blending those more ancient and primitive physical and physiological differences, and to substitute in their place the more recent and hence also the more plastic psychic and spiritual distinctions one recognizes today in Natio-Racial traits. But a more comprehensive elucidation of this thesis will be presented in a later portion of this chapter.

The sole pragmatic meaning of the word Race today, as applied to *living* peoples* is its reference to the so-called great

*The word Race can be used fruitfully when referring to an hypothetical past period in Europe when peoples lived in relative isolation.

color divisions of mankind. The White, Yellow, Black, Brown and Red peoples of the world probably deserve the name Race. Even among these broad divisions it is debatable whether or not it is more desirable to call the Brown* and the Red* peoples Races or Sub-Races. But as each of these groups has what appears to be true sub-racial divisions within it, it is probably best to speak of the White, Yellow, Black, Brown and Red peoples as Races.

The data in Chapters IV, V, VI and VIII demonstrated that Natio-Racial mental differences were significant and relatively persistent or permanent; and part of the data in Chapter VIII showed that Racial mental differences were small, inconsistent and unreliable.

The differences in peoples that are important in world affairs, the vital distinctions that cause one Nation to rise and prosper and another to fall and finally disappear, are psychological differences. A difference in general intelligence is only one of several psychological differences in innate constitution that help to decide the fate of Nations. Differences in the strength of certain instincts,** such as curiosity, gregariousness, submission, self-assertion, the instinct of possession, and differences in such temperamental qualities as the contrast between the introvert and the extrovert types, are other innate qualities which, forming the basis of moral development or character, help determine the destiny of a group. Besides differences in general intelligence,*** in the instinctive qualities

*Certainly the Aztecs, the Incas, the Mayas, the Toltec Indians were sub-races. It seems no less reasonable to call the Malaysians, and many peoples of North Africa and some of the groups in India sub-races of the Brown Race.

**William McDougall, "The Group Mind," pages 275-369.

***The author is engaged in an experimental study to discover if there is a creative order of intelligence that is relatively independent of mechanical, social and abstract intelligence.

just emphasized and in temperament, there are undoubtedly other innate inherent qualities which differentiate the Natio-Races of the world.

What are these qualities? The question is a difficult one and must be answered at the present time by stating that an innate drive or set of drives is responsible for differences in the artistic, musical, poetic, dramatic, mathematical and philosophical creativity of Natio-Races.

These animating and sustaining differences among peoples, these differences that have really counted in history, these differences that have caused peculiar arts, literatures, philosophies, religions and governments, have they been Racial or Natio-Racial? We have experimentally demonstrated that one of these differences, general intelligence, is Natio-Racial. Are differences in instinctive, in temperamental, and in creative qualities also sub-racial?

In lieu of experimental methods and experimental results, we must attempt to answer this question by (1) appealing to common sense judgments and to spontaneous reactions we have toward peoples within the so-called Racial groups of Nordics, Alpine and Mediterranean countries in regard to the similarities and differences in these inherent psychological qualities; and the latter part of the question is answered (2) by examining the creations that are the products of the combined innate psychological tendencies of the peoples.

1. *By appealing to common sense judgments and to spontaneous reactions to nations within the so-called Nordic, Alpine and Mediterranean Racial groups.*

Let us first consider some nations whose blood is said to be mainly of the last group, the Portuguese, Spanish, Italians (central and southern) and the Greeks whom many anthropol-

ogists list as "Mediterranean" although the average cephalic index ranges between 81 and 82. In regard to the strength of the possessive impulse, the instinct which determines the degree of providence in an individual or nation, the contrast is striking. The Greeks are one of the most thrifty people in the world; this attribute is largely responsible for their commercial domination in many spots in the Balkans, where their numbers are insignificant.

On the contrary the Portuguese and Italians (central and southern) are among the most "easy-going" white peoples. The Spanish people seem to be intermediate in respect to the strength of the acquisitive instinct, that is, they fall between the Greeks and the Italians and Portuguese.

There are marked differences in the strength and in the manner of expression of the instincts of self-assertion and self-submission among these four Mediterranean Nations. In testing children of three of these Nations differences in these instincts were noticeable. The Italians seemed to express their instinct of self-assertion by vivacious and pleased faces; the Greek children by gained assurance, and remarks, "the games are not hard" and the like, the Portuguese children by an air of relief. The self-submissive instinct seemed to be expressed in the Italians by a suppression of their joyfulness; in the Greeks by "giving down but not up"; and in the Portuguese by an appearance of resignation to the assigned tasks.

An immense difference in the strength and functioning of the gregarious impulse exists among these same Natio-Races. The Italians are so inherently social in their natures that compact village and communal life are natural and desirable to them. The intense individualism of a certain sort that the modern Greek possesses has been often noted. It is in part

due to the peculiar fashion in which this instinct operates that the Greeks are prevented from engaging in large commercial activities. The Spanish and Portuguese people appear to be intermediate between the Italians and Greeks in respect to the strength and peculiar form the gregarious instinct takes.

Although these four Natio-Races are very similar in relation to average height, hair and eye coloration, and cephalic index, (except the Greeks for the latter characteristic) careful attention to the physical configurations of these peoples, reveals that each Natio-Race has an individual *Gestalt*. The writer was able to state, with but five mistakes, the Nationality of nearly 150 school children representing seven National groups seated before him. The only information that he had was that the school classes were largely composed of Portuguese, Italian, Greek and French-Canadian children. In addition there were a few "American" children and two or three Irish and Jewish children. Undoubtedly picking the nationality of school children in this wise depends on something more than differences in anthropomorphic characteristics; a subtle psychological influence, the complex mental forces of a people, affect its facial patterns, even when they are immobile. The Natio-Racial qualities of a people, even on the bodily plane, are more important than the Racial; for although these four Nations have much in common, as is revealed in similar cephalic indices, that is, in Racial characteristics, yet their facial *ensembles* are so distinct that an observer can almost invariably recognize a child's nationality.

When we compare the innate instinctive and temperamental qualities of our four Mediterranean Nations to another quasi-Nation, whose Racial heritage is also largely Mediterranean, one of the more striking illustrations and one of the most sound arguments for our Natio-Racial hypothesis is predicated.

The Irish differ greatly from the Portuguese, Spanish, Italians and Greeks in most of the instinctive qualities that we have been considering. Their submissiveness is of another order; their self-assertive instinct is clearly more interfused with the instinct of pugnacity; their gregariousness has more often a political or quasi-political hue than a social one like the Italians. Temperamentally, the Irish and Spanish people seem to have more in common than the Irish possess in relation to other Mediterranean peoples.

The distinctions among Natio-Races whose common Racial blood is largely Mediterranean are duplicated when we turn to Natio-Races whose common Racial affinities are on the one hand largely Nordic or on the other hand largely Alpine.

What truly impersonal instinctive differences and temperamental differences exist among the Czecho-Slovenes, the Russians (especially the Great Russians) the Poles and the Jugoslavs; an interested and trained observer could segregate the subjects of most of these Natio-Races from a group of a thousand persons composed of them seated mixed together in an audience. Both the average Pole and the average Russian feel more antipathy for each other than either have for a German; and this antipathy, although arising partly from political nationalism and religious differences cannot be explained in terms of these differences. For both political nationalism and religious affiliations are in great part the expression and satisfaction of the psychological impulses and desires which differentiate the Russians and the Pole. To attempt to explain the unique differences between peoples of common Alpine blood, on the basis of nationalism is not at all in opposition to our Natio-Racial hypothesis, but indeed implicitly confirms it. For as we shall later on attempt to show, a Nation and the spirit of Nationalism are largely due to the self-conscious desire of

a group of people who are mentally homogeneous in regard to certain sentiments, ideals and beliefs, to organize, develop and maintain these psychological affinities. Nations* are the political embodiments and expressions of Natio-Racial desires and aspirations.

Lastly when we turn to Nations that are composed of so-called Nordic blood, the inherent differences of psychological constitution among them is no less noticeable and is no less significant than in Nations that are largely constituted by Alpine or Mediterranean blood.

A comparative study contrasting the instinctive and temperamental qualities of peoples like the English and Swedes would reveal in detail the general notion we are merely positing. A greater degree of introversion and a greater relative lack of sympathy are found among Swedes; while even the individualistic Englishman is more gregarious than this son of the north. The Swedes are perhaps more similar in psychological constitution to the Norwegians and Danes than to the English, but it takes no trained psychologist to note the innate mental peculiarities of these three nationalities. A Norwegian needs but be mistaken for a Swede or Dane or vice versa to elucidate this point. But it might be said that the annoyed Norwegian is angered by the stranger's identification of his nation with another one, and this pique is therefore due to socio-political causes. Exactly so; but political boundaries and social stratifications are primarily the results of (although they too become causes) Natio-Racial proclivities and aspirations. The Swedes, Norwegians and Danes today are Natio-Races, which have innate and inhering psychological differences that are functionally important and are relatively permanent. These Nations, it is true, differ less from one another in constitu-

*McDougall's. "The Group Mind," pages 222-231.

tional make-up than either does from the English, but there are such reliable and inherent differences that only a great common external danger* would cause them to act as a Nation; and only if this common menace lasted for several generations during which time intermarriage took place frequently and freely, would a unification of the three Nations take place, and the formation of a Natio-Race occur. Otherwise the removal of the common danger would witness a revival of nationalism and a furthering of separate Natio-Racial tendencies, both biological and psychological in nature, within each of the three Scandinavian countries.

We have touched briefly on some of the inherent psychological differences in Nations belonging to the same Racial group; we first contrasted some of the mental differences among four Mediterranean nations, and did likewise for some of the Alpine and Nordic Nations. But there is a group of nations that are composed of two or three of these former great Races of Europe in varying proportions—the French, Belgians, Germans and Italians. How can these nations be said to be Natio-Races? Do not these nations prove that three European races really exist at the present time and actually cross nations?

It is our belief that these countries, but more especially the former Austria-Hungarian, Russian and Turkish domains, demonstrate the Natio-Racial hypothesis. For the greatest inherent weakness of the latter domains was that they were mere *mixtures* and aggregates of peoples, living under one political system instead of a truly *blended* people. That is, they were States or Empires rather than Nations; and the same is true to a lesser extent (and the extent is closely correlated to the

*or perhaps the genius of a philosopher-king.

greater blend of the Races composing these nations) of the French,* German, Italian and Belgian nations.

The Belgians belong to two entirely different groups, the Flemings and the Walloons, (Nordic and Alpine blood respectively) who live in two distinct types of land, the plains and the uplands. Language here for once follows exactly in the line of race. The two parts of Belgium, the uplands and the plains, thus differ in race,** in language and in social customs.

Why and how then are these two races, the Nordic Flemings and the Alpine Walloons able to form a State, when they have no common language, no common social custom, and live in areas that are economically as dissimilar as are uplands and plains? If the Walloons were able they would say with Abbé Sieyès when he cried out against the French aristocracy:*** "Let us send them back to their German marshes whence they came!"

Belgium exists because great Natio-Races have artificially constructed it for diverse political reasons; and Belgium would fall apart were these great Natio-Races able to reach more mutually advantageous agreements. Belgium is not a Nation, despite the propaganda to that effect heralded so much from 1914-1918. It is a State that holds its parts together with great difficulty. Belgium is an excellent example of what a Natio-Race is not.

France is composed of the so-called three great Races of Europe. Various proportions have been allowed to each of

*Switzerland comes partly under this classification but its history, position and location are so unique that it cannot be considered here.

**Ripley, "Races of Europe," page 162.

***Ripley, "Races of Europe," page 157.

these Races. Professor Brigham estimates that the proportion of Nordic blood is 30 per cent, that the proportion of Alpine blood is 55 per cent and that the proportion of Mediterranean blood is 15 per cent of the entire population. Another estimate that has met with rather general acceptance is: Nordic blood 25 per cent; Alpine blood 40 per cent and Mediterranean blood 35 per cent. But whichever one of these estimates is more nearly correct, it is true that in a qualified sense France is composed of three great Races, and France is a Nation, with a genuine national group consciousness. Our problem then is how can three Races form a Nation, when our thesis has been that a Nation is the political expression of a mentally homogeneous Natio-Race?

When the statement is made that the French people are composed of various proportions of Nordic, Alpine and Mediterranean bloods, what exactly is meant? For the statement on analysis is both ambiguous and assumptious. The ambiguity resides in this fact: The statement concerning the proportions of Nordic, Alpine and Mediterranean blood in the French people may possibly mean that (a) a certain proportion of the entire French people are of pure Nordic blood, a certain proportion are of pure Alpine blood, and a certain proportion are of pure Mediterranean blood, or (b) the statement might mean that each Frenchman has a certain proportion of the three bloods within himself or (c) the statement might mean that a considerable proportion of the French people are a blend of the three bloods, while some small proportion of the French people are entirely of Nordic blood, another small proportion are entirely of Mediterranean blood, and a third proportion, somewhat larger, are entirely of Alpine blood; that is (c) tones down (a) and (b) and then combines them.

When many quasi-scientists speak of the Nordic, Alpine and Mediterranean blood of a Nation, they often either confuse (a) and (b) or do not recognize the fundamental distinction between them; and entirely overlook the correct interpretation (c).

Even if old-fashioned rigid Mendelianism* is applicable to psychological traits (as it has been thought for the last quarter-century to apply to the inheritance of most physical characteristics;) that is, *if* the mental traits of man *were* unit** characters, nevertheless a large proportion of the French people today would be a *blend* of the three races, for "the mosaic*** may be so finely grained and the unit qualities derived from the two parents so closely interwoven, that each individual may present an intimate mixture of the parental qualities, may represent for all practical purposes a blend of the two stocks."

So that when the French people are said to be composed, in varying proportions, of three Races the correct interpretation is that the great majority of the French people seemed to have been formed by a blend of the great European Races of three thousand years ago; while a minority of the French people are mixtures or but partial blends of these Races, (especially in the isolated mountainous provinces of Savoy and Auvergne).

But it is true that because of three relatively independent geographical parts, and perhaps through other causes, the blending of the Races that have formed the Natio-Race of Frenchmen has been less thorough, and in many regions

*The meaning and limitations of so-called Mendelian inheritance are clearly and succinctly stated in "Prometheus" by H. S. Jennings. especially pages 18-54.

**Considered briefly in the following section of this chapter.

***William McDougall. "The Group Mind," page 336.

slackens to a mere mixture, so that the French,* today, together with the Italians and Germans, lack the most single essential requisite of a permanent and healthy Nation, sub-racial unity.

Nevertheless the extreme types of Nordic, Alpine and Mediterranean Frenchmen, such as are found in the provinces of Normandy, Auvergne and Pyrénées-Orientales, three provinces where probably the mixture of the Races has been at a minimum rate for two thousand years, are all three more psychologically akin to the normal Frenchmen,** (the sub-Race Frenchmen) than they are to their Racial cousins in Sweden, Poland and Spain respectively. This is the extreme test for the Natio-Racial theory, and the facts seem to square with this theory fully. In other words even the only *partially mixed* Nordic, Alpine and Mediterranean Frenchmen are more similar to the true Frenchmen (the biological *blend* of these three Races) than they are to their almost pure Nordic, Alpine and Mediterranean cousins in Sweden, Poland and Spain.

Germany is confronted with a similar lack of a sub-race upon which to base her nationalism. The German nation is said to be composed of blood that is 60 percent Alpine and 40 percent Nordic. The proper interpretation of this statement is that the great majority of the German people are a partial blend of these former Races in Europe, whose original proportions were the figures given above.

*Many thoughtful Frenchmen are acutely aware that there is no French Natio-Race, and therefore stress cultural unity the more strongly.

**Four internal problems confront France today that are more important than her financial difficulties—(a) the falling population. (b) infusion of negro blood. (c) the presence of more than two million biologically unassimilated foreigners. (d) the absence of a genuine sub-race, which perhaps is partially responsible for her other three problems.

The process of forming a sub-race from the original two chief ingredients has not proceeded so far nor so thoroughly in Germany as in England or in Japan; but perhaps the formation of a Natio-Race has reached the same level it has attained in France. The innate differences between the Prussian who is a Nordic that is Alpinized and the Bavarian, who is an Alpine that has been Nordicized, is too generally felt and known to be discussed. Other South Germans and East Prussians hereditarily greatly differ from the Prussians. Perhaps just such a lack of sub-racial unity acted as the decisive obstructing factor that prevented the German states from forming a unified nation for centuries. It was only when a common menace and a philosophical military statesman occurred conjointly that the possibility of a German Natio-Race appeared. Through the too early death of Bismarck this possibility was lessened but the Great War again started the unifying forces (psychological and biological) to work. Twelve years of common suffering and misery have greatly diminished the animosities between the Alpinized Nordic parts of North Germany and the Nordicized Alpine parts of South Germany. Another fifty to hundred years of favorable circumstances (the most necessary of which is great men) would witness the formation of a real German sub-race, the phantom of which has been artificially constructed and reconstructed by propagandists, publicists and German professors for the last forty years.

Our Natio-Racial hypothesis might be attacked explicitly again by a contrast between the mental qualities of the Prussians and Bavarians on the one hand, and on the other by a description of the mental similarities of the Prussian quasi-Nordics to the Swedes and of the Bavarian quasi-Alpines to the North Italians. We would answer such a possible criti-

cism thus: (1) we have already stated that the German States do not form a Natio-Race yet; the blending has thus far been only partial, and in some isolated sections there has hardly been more than a mixture of peoples. (2) But even considering the present psychological status of the German people, it can be somewhat confidently affirmed that the Prussian and Bavarian, despite their undeniable innate differences, are more akin in inherent mental and moral qualities,* than the Prussians are to their Nordic cousins, the Swedes, or than the Bavarians are to their kinsmen of centuries ago, the North Italians. The patience, persistence, energy and thrift of Germans as well as their docility, heaviness and regimentability, seem to be innate qualities which peoples from all German state possess in common, and which German** immigrants and their children have shown generally with an amazing consistency and permanence.

North Italy is so markedly different in its entire mental and physical atmosphere from Southern Italy that each traveler leaving Naples feels himself in a different civilization when he arrives in Milan or in Turin. This great difference in civilization is no more striking than the contrast between the peoples themselves of northern and southern Italy. The Italians are intensely conscious of racial or sub-racial differ-

*Perhaps temperamental qualities are more deeply seated in Man's plasm than other psychological traits; that is, they are more biased by Racial composition, and are less pervious to change by blending, etc.

**"To an American the apparent unwillingness of some of the Germans boldly to own up to the radical ethnic differences which exist between the North and South of the Empire is incomprehensible. It seems to be not impossible that the Teutonic blond race has so persistently been apotheosized by the Germans themselves as the original Aryan civilizer of Europe, that to acknowledge any other racial descent has come to be considered as a confession of humble origin." From Ripley's "Races of Europe," page 228.

ences among themselves. These mental differences are surely one of many causes that kept Italy for centuries a house greatly divided against itself; and the present political unity of Italy is an artificial product of three or four great men and the good will and possible influence of other nations.

"The ethnic transition from the Alpine race in the Po valley to the Mediterranean* race in Italy proper is particularly sharp along the crest of the Appenines from the French frontier to Florence."

So Italy like Belgium and the former Austria-Hungarian, Russians and Turkish Empires cannot accurately be termed a Nation. The Alpine and Mediterranean branches of this country are not even mixed, biologically or geographically, and their economic, social and political dissimilarities are sharp and antagonistic. Only farce, force and fear can hold such disharmonious peoples together; a Natio-Race, the biological and psychological substratum of a Nation, is entirely lacking. The suprising fact in all of this is that the Italian** peninsula has been a unified *State* for more than fifty years.

We have devoted the last several pages to inquiring whether or not instinctive, emotional and temperamental qualities are Racial or Natio-Racial in their origin, meaning and extension. We turn now to inquiring whether or not the creative impulse or impulses are Racial or Natio-Racial in origin, in expression and in extension by

*Ripley, "Races of Europe." page 258.

***"The political unification of all Italy, the rapid extension of means of communication. and above all, the growth of great city populations constantly recruited from the rural districts, will speedily blot out all remaining trace of local differences of origin. Not so with the profound contrasts between the extremes of north and south. These must ever stand as witnesses to differences of physical origin as wide apart as Asia is from Africa——" From Ripley's "Races of Europe," page 228.

(2) *examining the artistic, literary, scientific, religious, philosophical, etc., productions and creations of the European peoples.*

Such an examination would have been impossible before the publication of "The Character of Races" by Ellsworth Huntington. In this philosophically scientific book, Chapter XV gives a summary of the creative work that has been done in Europe since 1600 A. D. in five major groups of productivity, (1) religion, philanthropy, philosophy, and education, (2) science of all sorts, both natural and mathematical, together with inventions and engineering, (3) history and economics, (4) literature-art; and (5) politics, government and war.

Many most interesting facts are given, but tentative conclusions are reached that Professor Huntington seems to feel are rather negative, for he has been previously writing of the Great Races of Europe and discovers that "Race, as we have just seen, does not seem to explain the presence of the artistic and literary temperaments.—Nor does there seem to be any environmental condition which would cause one part of Europe to tend to produce literary men and another part artists. The distribution of people who attain eminence in religion and philosophy is equally puzzling. What common factor causes the Nordic Scotch and the Alpine Swiss to have a very strong religious tendency, while the Nordic Swedes and the Alpine Belgians have a minimum interest in religion? In most of the other maps* the conditions seem equally puzzling. The only exception is the map of persons who distinguished them-

*Professor Huntington gives a great deal of his data by presenting five maps of Europe showing the percentage of scientists, artists, historians, etc. coming from various countries and sections of Europe.

selves in war and politics." But even in this field there are so varied and so many exceptions that they do not at all prove the rule. For even though we should expect a high proportion of the eminent men in the Balkans to be warriors and political leaders, because of the backward conditions in these countries, yet how explain how "Denmark, Sweden, Bohemia, Austria and Ireland had such a large percentage of soldiers and political leaders among their great men?"

Let us go to particular countries. Why is it that the so-called Nordic Swedes have such a low proportion of eminent men in religion in Europe while the Nordic Scots have one of the largest proportions of eminent men in religion? Why is it that the Alpine Swiss have produced a remarkable array of eminent men in religion, like the Nordic Scots? Why is it that the highest proportion of eminent men who have become historians come from Nordic Norway, from Alpine Germany and France, and from Mediterranean Portugal and Italy.*

Now let us consider and contrast two countries, the Scotch and the Irish. "Scotland stands well above the average in men who have achieved fame either in religion or in the sciences. It is almost exactly average in literature, and in war and politics combined, while it falls distinctly below the average in historians, and has had only half the average percentage of artists.—It seems as though it must be their racial character which leads them forward in science and religion, and keeps them back in history and art."

Let us now consider Ireland. "That country has 292 eminent men in our five groups. In spite of certain disadvantages it is difficult to see any reason save their own character

*Among Finland's and Hungary's eminent men there is also a high proportion of historians.

which should cause the Irish to have only two-thirds of the average proportion of scientists and half the average percentage of historians, whereas they have shown about the average tendency toward religion, art and literature—."

Professor Huntington concludes that "perhaps there is some guiding principle in all this, but I cannot find it," and "no definite laws appear to be detectable in the distribution of types of eminence. One country certainly differs from another yet not according to any definite plan that can be recognized. *If racial tendencies play a part in determining the lines in which genius manifests itself, as presumably is the case, those tendencies do not seem to manifest themselves as we would expect on the basis of distribution of Nordic, Alpine or Mediterranean blood. Nor do they conform to the distribution of racial kinship as denoted by the form of the head.*"*

The substance of all these statements either quoted from or relating to Professor Huntington's work is (a) that the peculiar turn or specific type that genius and eminence take in Europe has no correlation whatsoever with *Race*. "No bodily trait such as head-form, complexion or the supposed indication of racial affinity has thus been found to display a geographical distribution like that of men of eminence**—" (b) On the other hand there is a definite relationship between *type* of creative activity and the *country* of which the eminent person is a son. (c) Converting the terminology of (b) into our own nomenclature we must say that there is a definite relationship between *type* of genius or eminence and Natio-Racial inherent propensities. Each Natio-Race has its

*The italics are my own.

**"The Character of Races," page 234.

unique type or types of genius, just as each Natio-Race has a peculiar instinctive and emotional structure, and a singular form and amount of general intelligence. The creative drive or drives of Natio-Races are even more specific and non-duplicatable than any other aspect of the psychic structure.

It is only in the sense of Natio-Racial mental constitution that one can speak of the influence of "Race" on national character and institutions. The influence of Race on national character in the sense that the Racialists employ the term means the "influence of the *prehistoric** races which have entered into the social composition of the nation—that is, those races from which its population is *descended*." Race has an influence upon national traditions and national character to an extent something like the influence great-grandparents to the hundredth** generation have upon their present-day descendants, both from their hereditary transmissions and from the traditions and environmental settings they pass on. Natio-Racial psychic tendencies determine and mould a nation's character and a nation's institutions to the extent that great-great-great-grandparents influence their family descendants, both through direct plasm transmission and by the group mind, traditions and social customs they pass on. The Racialists remind one of the boastful decadent who prates of the greatness of *one* of his Battle of New Orleans ancestors, while the Natio-Racialists resemble those persons who are ineluctably drawn to fine and noble ideals and deeds through the inheritance of splendid tendencies from four healthy and intelligent grandparents.

*"The Group Mind," page 152; the italics are my own.

**If three generations are counted to the century then it is at least a hundred generations since the Races of Europe existed in anything approaching relative isolation and purity.

The differences in general intelligence among Natio-Races was significant; it can hardly be doubted that there are also great differences in the intellectual *quality* of different peoples. The logical deductive tendencies of the French intellect; the empirical inductive nature of English thinking; the philosophical bent of the German mind; the mystical turn of the Russian's thinking, and the artistic and sensuous bent of the Spanish intellect—all these peculiar, qualitatively different kinds of intellection are Natio-Racial, not Racial, in their cause, in their significance, and in their implications.

Upon the Natio-Racial hypothesis each distinctive nation may be regarded as a psycho-biological species, which constitutes and fabricates a social milieu that is congenial to and is an expression of its innate psychic structure. How a Natio-Race originates and develops, gradually changing its nature, will be briefly analyzed in the following chapter.

Before turning to this chapter a brief survey of other Natio-Races in Europe and elsewhere, is relevant.

Bulgaria* and Hungary are splendid examples of the principle that Natio-Races seek and attain expression in nationalism and nationhood. Modern Bulgaria was formed out of a population of quiet peasant proprietors united by their racial distinctness from the surrounding populations. An external cause, the invasion of Bulgaria** by the Serbians in 1885, aroused and unified the Bulgarians, resulting in the formation of a Nation-State.

Hungary has survived periods of storm and stress time after time, when the sole saving factor was Natio-Racial consciousness. Constantly surrounded by Slavs, Germans and Rou-

*J. Holland Rose, "The Development of the European Nations."

**Bulgarian blood is thought to be closely akin to Finnish blood.

manians, and invaded several times by Asiatics, this Natio-Racial group has again, in the last war, suffered disaster. But the statesmen of Central and Western Europe realize that Hungary is one of the unhealable sore spots of Europe, and through its purity and intensity of Natio-Racial feeling, will resurrect itself all too soon.

Roumania's identity, its rebirth during the last fifty years, was due to the infusion of Mediterranean blood in millions of its citizens. A Natio-Racial group, containing some Mediterranean blood and claiming more, with a Romance language and with cultural peculiarities that further distinguished it from its encircling Magyar, Slavic and Bulgarian neighbors, has within the last eight years assumed the proportions of a third class power. Its greatest weakness is the inclusion within its artificial borders of several million people of other sub-races: Hungarians, Germans, Jews, Bulgarians and Russians.

Bulgaria, Hungary and Roumania are examples *par excellence* of the existence, meaning and efficacy of Natio-Racial groups, and the effect and relation of such a psycho-biological species to nationalism and nationhood.

Another sore spot in the Balkans is also splendidly illustrative of the potency of Natio-Racial groups, even when these groups are unable to form a state, and their nationhood is thereby incomplete.

Macedonia is now as always the principal plague spot in the Balkans. Why? The population consists of three groups of warring factions, Slavs, Bulgars and Greeks, who are all three separated from their Natio-Racial groups. The case is further complicated in that the largest of these groups, the Slavs, speak Bulgarian, the language of their greatest enemy, because during the Turkish rule Bulgarian schools and

churches were favored. The historical enmity among the three groups is too great to hope that they will ever so freely intermarry as to cause a Macédonian sub-race. Some exchange of populations is the only reasonable expectation for a peaceful solution of this perpetual sore spot.

The Jews exemplify Natio-Racialism in a manner that has no parallel in world history. Without three of the most important conditions of nationality,—a country, a language used by the entire group, and a State,—they have survived the most terrible vicissitudes of fortune for three thousand years.

The perennial discussion as to whether the Jews are a Race or a singular religious group cannot be settled between these alternatives. For although they are not a Race, neither is their chief differentia religious distinctiveness. The latter is an expression and crystallization of their inherent Natio-Racial impulses and desires. That is, the Jews are a "peculiar people" in the sense that they are a Natio-Racial group.

The Jews are not a Race. Their anthropomorphic characteristics approach the type of the Natio-Race in whose country they are living; and this in respect not only to hair, eye and skin coloration, but more unaccountably in regard to the cephalic index. There are blonde Jews and brunette Jews, Jews that approach the Nordic type, Jews that approach the Alpine type, Jews that approach the Mediterranean type; a few generations,—from four to seven or eight,—sees the Jew in most physical attributes approach the type represented by his non-Jewish neighbor. This fact deserves more attention than it has received from physical anthropology.

But the Jew mentally, temperamentally, spiritually, does not approach the type with which he resides as time goes on. In manners, external customs, dress and language, yes; but the more hidden psychological forces that are hereditary are but

little transformed. In this sense the Jew is a Natio-Race, despite the fact that he is far from being "racially" pure. The Jew is disliked primarily because despite physical, economic and social differences among themselves, "all Jews are Jews," meaning that there is a psycho-biological principle that unites the most dissimilar of types of this strange, paradoxical Natio-Race.

The South American Republics are an interesting embodiment of the Natio-Racial principle. We say principle because most if not all of the South American countries are in the *process* of Natio-Racial formation.

Less than a century ago most of these Republics were still under Spanish or Portuguese dominion and policy. The South American Republics, before our eyes, are verifying our Natio-Racial hypothesis. A rapid formation of Natio-Races out of an apparent homogeneous Spanish* continent has taken place, especially within the last half century. The Argentinian, Chilean, Brazilian, Peruvian and Uruguayan mental types are already sufficiently formed to permit recognition. Of course there are great groups* within each of these nations that in no way have mixed with the embryonic new type that is evolving. The presence in most of the South American Republics of great numbers of Indians, and in some of them of Negroes, complicates and delays the process of Natio-Racial formation, and probably in one or two countries will forever prevent it. Also the continuous immigration in large numbers of peoples from all European countries will delay the formation. But by the close of the twentieth century there will be six or seven, or perhaps even ten, great Natio-Races in South America, that

*With the exception of Portuguese Brazil.

will be almost* as distinct from each other as are the European Natio-Races.

Mexico is an illustration of the present formation of a Natio-Race. Class distinctions, lack of communication, both material and ideational, and lack of contact with other nations are among the many reasons for the slow formation of a Mexican sub-race. Yet it is on its way.

The United States is our best example for our hypothesis: the formation of a Natio-Race in the United States, with its difficulties and promises, will be discussed in Chapter XII.

We may pertinently conclude this chapter by explicitly considering the relationship which we believe to exist between a Natio-Race and a Nation.

Both a Natio-Race and a Nation are psycho-biological species. When one speaks of a Natio-Race the biological aspect of the psycho-biological species is emphasized, and when one considers a nation the psychological aspect of the psycho-biological species is accented.

A Natio-Race is an almost indispensable condition for the existence of a nation. A nation is the psychological expression of a natio-racial group, through some form of socio-political organization, that is, the socio-political organization of a Natio-Race is a Nation.

Natio-Races exist that can hardly be called nations. Witness the case of the Gypsies and of Poland during the last century. However, nations can hardly exist without resting upon a Natio-Racial substratum; Belgium, Ireland and India are not exceptions. A Natio-Racial group is analagous to the body of an individual; a nation is analagous to the mind of

*We state "almost" guardedly, for it is our opinion that it takes from eight to ten generations of free intermarriage for a Natio-Race to be organically constituted.

an individual; and the interaction of bodily processes and mental functions is similar to the relationship existing between a Natio-Race and a nation.

Our Natio-Racial hypothesis is strongly supported when we reflect upon the spread of Nationalism during the last ten years. Natio-Racial groups throughout central and eastern Europe suddenly flared up, demanding autonomy and nationhood. Finland, Lithuania, Latvia, Esthonia, Poland, Czechoslovakia, Jugo-Slavia, Natio-Races for centuries, became nations through the revolutions and upheavals of the Great War.

CHAPTER XI

THE PRINCIPLES UNDERLYING THE FORMATION OF NATIO-RACES

Walter Bagehot in his "Physics and Politics" distinguishes two great periods in the development of peoples. One of these he calls the race-making period, which in a rough manner corresponds to the whole prehistoric period of man; the other he terms the nation-making period, which in a rough manner corresponds to the historic period.

This distinction has a certain value, but not entirely in the manner Bagehot supposed; for Races have changed during the last three or four thousand years, and if our hypothesis is true, the "Three Great Races" of Europe have all but disappeared during the last twenty-five centuries. However, the prehistoric period of man's sojourn on this planet was the time that man himself evolved from some anthropoid-like ancestor, and then differentiated into four* or five great groups, on the basis of color classification,—the white, yellow, black, red and perhaps brown Races.

From ten to twenty-five thousand years ago up to three to five thousand years ago, the White Race divided into three or four divisions or Races, the Alpine, Mediterranean, Nordic and perhaps Semitic Races. This last differentiation within the White Race took place in a much shorter time than the evolution of the colored races from one hypothetical prototype; and the formation of Natio-Races took place and takes place much more rapidly than the differentiation of Races within the White Race. The reasons for this acceleration in the formation of groups as one proceeds from the distant past

*Even this has been lately disputed by an interesting set of facts by F. G. Crookshank in "The Mongol in Our Midst."

to the historic period and the present will be shown throughout the remainder of the chapter; it suffices here to state that the addition of social selection with all its implications to natural selection, such as, especially, means of communication allowing peoples and ideas to migrate and mingle freely, insures the intermarriage of unlike peoples on a great scale; and the biological blending of Races and Natio-Races is one of the most efficacious methods for the formation of new Natio-Races.

Natio-Racial formation is produced by the varied interplay of two or more of the following agencies, (a) natural selection and isolation (b) migrations and intermarriages of the migrating stock with the population which it conquers or in whose land it settles (c) the operation of social selection, with all of its diverse ramifications (d) mutations (e) the creativity of genius (f) the acquisition of acquired characteristics. We shall briefly discuss each of these agencies separately, although it is to be emphasized that they often act conjointly.

(a) *Natural Selection and Isolation*

We must beware of assuming that natural selection no longer operates upon civilized man, and has not done so during the Christian era. It is true that the further we recede into the distant past the more powerful the influence of natural selection becomes.

But today in many parts of the world natural selection is working at a terrific havoc. In China millions of people die each decade from famine and cold; or from diseases that are directly traceable to prolonged undernourishment and cold. "It needs no demonstration to show that the first effect of a Chinese* famine is to kill the people who are physically weak.

*"Character of Races," page 185, Ellsworth Huntington.

Any organic disease is almost sure to be intensified and ultimately to prove fatal under the stress of insufficient food, exposure and mental stress."

Turning to ancient Greece we see natural selection working in somewhat another direction. "During* the great age of Greece, the climate appears to have been stormier, a trifle cooler, and decidedly more bracing than now. Malaria likewise appears to have been relatively scarce and to have done little harm. . . . When the climate changed for the worse, especially from about 300 to 200 B. C., a great adverse selection seems to have taken place, whereby the fair Greeks of the intellectual classes died out, thus leaving only the Pelasgian stock as progenitors of the Modern Greeks."

Natural selection, as its name implies, though no respecter of human value, brings good as well as evil in its wake. Probably natural selection was the main factor in producing the old Nordic Race from a population in Scandinavia that originally was non-Nordic. Certainly after the Nordic race existed, natural selection operated favorably for the improvement of the race. The history of the Icelandic people is especially instructive from this viewpoint.

The historical potency of natural selection is well illustrated in the origin of the early Americans. The Puritans were a triply selected group. They first comprised a small percentage of English people who braved the persecution and contempt of the great body of Englishmen. Then a select group went to Holland. Those who went were in general the ones with unusual courage, determination and great initiative. A third selection occurred and the Pilgrims were the result. Even then the selection was not complete, for during the journey

*"Character of Races," page 247, Ellsworth Huntington.

over and during the first winter, nearly one-half of the original Mayflower party died. Natural selection, as well as social selection, was thus responsible for the very superior stock that peopled the present New England States during the seventeenth century.

These scattered historical examples are given solely to indicate how natural selection operates to transform and differentiate the native qualities of part of a body of people or of a nation. When natural selection operates in conjunction with geographical isolation one of the agencies in the formation of Natio-Races is at play. Natural selection and isolation account, in some part, for the Icelandic, Irish and Japanese Natio-Races today; and to a lesser extent have functioned in the formation of all continental Natio-Races. But the next agency, migrations and consequent intermarriage, has been a more weighty factor in the formation of sub-races.

(b) Migrations, and the intermarriage of the migrating with the native stock

There are few social phenomena that have been as significant in man's history as migrations. One can say that as "Necessity is the mother of invention" so migration is the father of new Natio-Races.

Migrations are occasioned by many causes. Wars, famines, pestilence in ancient times, and the threat of these phenomena, or religious and political persecutions in modern times are sources of migrations. But these phenomena do not cause all of the people so afflicted to migrate; the hardier, more daring, more intelligent and more healthy migrate when their milieu becomes difficult; and during the migration natural selection operates most severely, taking a death toll, on the whole, of the weak and deficient. Migrations seem to afford

a period when natural selection again comes into its pristine state of all-powerful dictator of the fate of individuals. Migrations also seem to breed migrations, that is, "one racial movement* interferes with another, and the effect of a movement in one place may be to displace tribe after tribe, so that the commotion extends thousands of miles, and endures for generations. The result is bound to be an extraordinary complex series of migrations which give almost unlimited opportunity for natural selection and mixture, and thus for the creation of racial stocks with highly diverse characteristics."

But at the present our sole interest in migrations lies in the fact that they are an indirect cause in the formation of Natio-Races by permitting the crossing and blending of diverse ethnic groups. In the course of seven or eight generations, if free intermarriage is permitted, the mental qualities of a migrant group and of a native group will be so crossed and re-crossed** that is, so blended that a homogeneity of innate psychological qualities ensues. Thus a new Natio-Race results. There are two more negative conditions*** needed to insure the formation of a sub-race from two ethnic groups within a period of seven or eight generations: (1) some insular character of territory, which would sharply demarcate the developing Natio-Race from its nearest neighbors (2) an exclusion of other migrant groups differing howsoever little ethnically, during the seven or eight generations necessary to

*The Character of Races," page 208.

**A thorough mixing of so-called "unit traits" would result in an apparent blend of them.

***America has one of these requisites through Nature's gift, and it is possible that she may secure the second through her own choice and legislation.

its mature development, (a period of from two hundred to two hundred and fifty years).

The formation of most of the European Natio-Races has occurred through the blending of more or less similar stocks; this blending was rendered possible by some territorial insularity, and by a relative freedom from immigration during the process of their formation.

The English of today are the blend of British, Anglo-Saxon, Norse and Norman stocks. Their island territory partially isolated them from their neighbors; the migration of Anglo-Saxons was followed centuries later by the invasion of the Norsemen, a very similar people. Then it was two centuries more before another invasion occurred, and again by a similar ethnic group, the Normans. "The English form now a stable new sub-race, or secondary race, in which the qualities of the northern race predominate. The sub-race may be regarded as innately homogeneous in fairly high degree; not so homogeneous as a people of unmixed racial origin, or one formed by a blending of more remote date, but more so than most of the European* nations. *This is the sense in which we must understand the word Race, in discussing the influence of race upon national character.*"

The formation of a very blended Natio-Race in France has been hindered by the presence of the three European races in its territory, but also by the partial geographical separation of France into three belts, running East and West. The formation of a very unified Natio-Race in Germany has been hindered and delayed by the lack of natural boundaries, and the consequent constant intercourse of Germany and Germans

*"The Group Mind," page 170, William McDougall. The italics are mine. Professor McDougall's books have been the foundation of many of the ideas expressed in this and the following chapter.

with the outside. The presence of natural boundaries would have sealed Germany's nationalism and nation-hood centuries ago.

The crossing and blending of races and sub-races today are proceeding at an unprecedented rate in the South American countries and in the United States. Yet the final results, whether for good or for evil, are still in the making, and depend upon the internal and external policies of these nations.

(c) *The operation of social selection.*

Just as natural selection has in large part been supplanted by social selections in the civilized regions of the world, so individual competition and struggle have to a great extent been replaced by social and national group competition. Social selection unfortunately acts as an agency in the formation of Natio-Races in a largely destructive fashion—by class substitution, and consequently, but indirectly, by Natio-Racial substitution and transformation. Social selection tends to deform and destroy Natio-Races rather than to form and create them. For it substitutes the lower grades of a society for the upper, and permits the gradual substitution of one sub-race by another, without however changing the geographical boundaries, the language, the laws and customs, of the founders of these social fabrications. Although social selection by class substitution and by sub-race substitution are theoretically separable, in actual historical cases the two have been intimately merged, principally because a Natio-Race was not completely formed; the original ingredients still existed in some degree of purity in the economic or social classes of the quasi-nation.

Ancient Greece and modern France are interesting examples. The great change in the mental qualities of the modern popu-

lation of Greece as compared to Ancient Greece is due to a substitution of a quasi-Mediterranean people for the old mixed Nordic-Mediterranean stock that carried Greece to such intellectual heights and creative altitudes. The old races of Greece were only partially blended; the lower classes, the Pelasgians, were almost untouched by the invasions of the quasi-Nordic Thracians, Hellenes, Arceans, Ionians and Dorians. So that when social selection operated through wars, colonization, political exiles, deaths and birth control; and lastly, later during the Roman domination, through the removal of tens of thousands of Greeks by the slave trade, the Greeks who remained were of a different class and different race.

A similar process is occurring in France, with a similar background. The original Alpine, Mediterranean and Nordic elements have not been thoroughly blended; on the whole, the Natio-Racial Frenchman, with a mental heritage that is in great portion Nordic, has been rushing to the city, where urban* selection is fast decimating him. De Lapouge has convincingly shown that town life reduces the fertility of families, owing to a variety of psychological causes. We have only to remember that "if within any people** there are two equally numerous classes of persons of different mental constitution, A and B, and if these constitutions determine that one group A has a net birth rate of three children per pair of adults, while the other B has a birth rate of four per pair of parents; then, in the third generation after one century, the number of the two classes, other things being the same for both, will be as ten to sixteen. After two centuries the one

*De Lapouge "Les Selections Sociales."

**"The Group Mind," page 347.

class will be more than twice as numerous as the other; and after three centuries the numbers of Class A will constitute about fifteen per cent only of the entire population. Late marriage is also very important. Suppose that of two classes, A marries at 35, and B at 25 years, and that each produces four children per marriage; then (other things being the same) after three and a half centuries B becomes four times as numerous as A. *These two* factors generally work together."*

This same process is occurring in Germany. The Nordicized Alpine is increasing each decade at the expense of the Alpinized Nordic. Social selection is playing a great role all over Europe, but its most disastrous effects are probably most apparent in France and Germany, just where the Natio-Racial unity is least secure and where the blend is least thorough. Neither France nor Germany of today has the Natio-Race it held a century and a half ago, before the so-called "industrial revolution" changed manners, morals, customs, and, more importantly, introduced extensive urban life.

(d) *Mutations as a cause of the formation of Natio-Races*

The work of De Vries, Morgan and other of the latter's associates has shown us that mutations are one of the veritable causes of evolution. But little has been learned of the causes of mutations, and as to the relation of mutations and the evolution of man—nothing. Mutations is a word almost entirely neglected by anthropologists and other scientists interested in the study of man. It is therefore splendid to see such statements in "The Character of Races" as the following: "From the biological standpoint we are quite certain that the

*The italics are mine.

inherent mental and physical differences between one race or stock and another are largely due to three chief causes: first, sudden mutations—No clear understanding of mutations and deviations has yet been attained—As to how or why such mutations or deviations occur we have as yet no definite knowledge—” and on page 78, Professor Huntington in summing up the causes that have led to the present superiority of the so-called Nordic Race by positing environment, racial mixture, and natural selection as the causes, states that “Back of these lies still a fourth factor—the mutations or progressive deviations which may be of supreme importance; but as to whose causes we know so little.”

Mutations as a principal method and cause of evolution has been avoided largely because it is somewhat “mysterious” and unmeasurable. We have not dodged the subject of mutations, since they are probably the greatest single factor in the “origin of species,” and have been one of the chief agencies in the formation of Natio-Races, as well as in the more remote past a principal cause in the differentiation of the Races.

Risking the hazard of being deemed philosophical, speculative and vague, in fact, anticipating that prospect, we will suggest an hypothesis upon the causes of mutations.

Mutations have probably two types of causes; some mutations are determined by an internal psycho-biological cause; other mutations are the results of very rapid natural or *artificial* changes in the *milieu* of the fertilized ovum. And in the case of mammals, by *milieu* we also mean the *body* of the animal which is a *milieu* for the spermatozoa or ova. The experimental work in mutations has been concerned with this latter type, or externally caused mutations.

But most mutations have a different origin, for individual mutations could have had little to do with the origin of species. The continuity of the germ plasm, its dramatic immortal-

ity, may or may not be affected by the psychological strivings, yearnings and strainings of the individual that carries it and passes it on to the next generation. Our hypothesis is entirely independent of Lamarckianism, but if the latter be true, it would make the inheritance of acquired characteristics a more understandable process. Our hypothesis is: The immortal germ plasm of man, that contains somehow the phylogenesis of animal life, is *itself* constantly changing, experiencing, evolving, separate and independent of the changes that go in the mind, body or external environment of the carrier of the plasm; that is, the germ plasm itself lives, experiences and evolves without the hindrance of a many-celled body whose individual cells check, balance and prevent revolutionary changes, that is, mutations.

The principal cause of mutations is then that the germ plasm is constantly evolving and changing, while the body is relatively stationary and static. Whenever the *accumulated* change in the germ plasm is sufficient to overcome the conservative forces of the body, a mutant appears; and there is then a period of evolutionary permanence again. The cause of mutations on this hypothesis then is a *psycho-biological one*, in which striving and experiencing are fundamental facts. Natio-Races have mutations as one of their causes.

(e) *The creating of geniuses*

The formation of Natio-Races is often in great part the work of geniuses and great men. All of the material conditions for the formation of a Natio-Race and a nation might exist, and through lack of great men or of the great man, national unity and a well blended sub-race might fail to be achieved. Every great nation has its national heroes whom it glorifies and reverences, and sometimes deifies, for to these

heroes, these great ones of the earth, the nation often owes its very birth and its persistence.

Great men create ideal patterns for art, literature, and conduct, and construct the forms of institutions, religions, and philosophies, which through social selection produce a Natio-Race and a national consciousness. The development and persistence of a nation hardly less than its inception depends upon the continued production of some great men, and of many men of much more than average capacity. "It is these men who keep alive from generation to generation, and spread among the masses and so render effective, the ideas and the moral influence of the men of supremely great powers. These men exert a guidance and a selection over the cultural elements which the mass of men absorb. They praise what they believe to be good and decry what they believe to be bad; and in virtue of the prestige which their powers have brought them, their verdict is accepted and moulds popular opinion and sentiment."*

The extent to which nations owe their origin, development and continuance to the creativity of great persons can be imagined if one removed only one or two great persons from the history of certain nations, as Peter and Catherine from Russia, Frederick the Great and Bismark from Germany, Garibaldi and Mazzini from Italy, Washington and Hamilton from the United States, Masaryk and Benes from Czecho-Slovakia, and Kemal Pasha from modern Turkey. Great men were even more important to nations and civilizations in the more distant past—Hammurabi, Sargon, Zoroaster, Moses, Lao-Tse, Mahomet—great civilizations were in large part due to the creativity, originality, force and magnetism of these men.

*"The Group Mind," pages 190-191.

Great men and geniuses, as well as natural and social selections, migrations and intermarriages, and mutations, are veritable agencies in the formation of Natio-Races.

(f) *The inheritance of acquired characteristics.*

Lastly, the formation of Natio-Races *may* be due in part to the inheritance of acquired characteristics. For many years the possibility that acquired characteristics could modify the germ plasm has been vigorously denied, and denounced as a vestigial hypothesis of a deal vitalistic biology. Recently however, a modified form of Lamarckianism is gaining currency with some prominent biologists and psychologists. If acquired characteristics are inherited, both the facts of evolution in general and the facts of the formation of Natio-Races in particular are rendered more intelligible.

CHAPTER XII

THE UNITED STATES AS A NATIO-RACE PRESENT AND FUTURE

The population of the United States in 1920 contained nearly sixteen million native-born white persons of foreign parentage; seven million native-born white persons of mixed parentage and nearly fourteen million foreign-born white persons, out of a total white population of ninety-five millions. In addition there were more than ten million negroes in our population. When we reflect that only fifty-five per cent of the population of the United States was of native white birth of native parentage, and the other forty-five per cent was constituted by more than twenty European Natio-Races (and one negro group) whose languages, customs and traditions differed greatly not only from one another but from the older American stock, the seriousness of the situation becomes obvious.

This difference in Natio-Races as we have seen means differences in general intelligence, in emotionality, in temperamental qualities and in type and amount of creative impulse. Probably never before in history has such a psychically heterogeneous mass lived under one flag and state.

Down to the Civil War, as Eliot Norton has shown, the United States was developing into a distinct Natio-Race, which though largely Nordic in the remote ancestry of most of its citizenship, was evolving a Natio-Racial group spirit and blood quite unlike the countries of north and western Europe. But the United States is less a nation than it was in 1861; it is a quasi-nation. With a host of self-conscious Natio-Races in this country, how could it be otherwise? The great unifying and solidifying forces today are the influence of the elite of the old stock and of the much criticized public

school system. Besides these two agencies, the growth of our nationalism depends upon the spread of ideas through the radio, the automobile, the moving picture and the press, which latter more and more responds to the dictates of the masses. Probably this artificial sort of integration of the Natio-Races is as at present necessary, but it is incomplete and shallow.

But a Public School training, however excellent, (and a great percentage of our immigrants are not in the Public Schools) can neither supply a substitute for low Natio-Racial mentality nor furnish an external discipline that will overcome those inherent emotional and temperamental qualities of Natio-Races* that breed crime, insanity and revolution; and we have objective evidence that there are significant and persistent mental differences among the Natio-Races, and other evidence of a quasi-objective nature that there are immense differences in the emotional constitution of these Natio-Races. Studies of the types and amount of criminality reveal this fact from one angle.

The greatest desideratum in the United States today is the formation of a Natio-Race and consequently an integrated self-conscious Nation. To bring about this noble consummation requires great changes both in our external and internal policy. Externally, our immigration policy in the future is of prime importance; internally, a negative and positive eugenics program that will involve birth-control, and avoidance of miscegenation, the crossing and blending of certain Natio-Races, and the increased fertility of the intelligent, healthy and beautiful of the older stock, is imperative.

The immigration law passed by Congress May 15, 1924, is

*See Dr. Laughlin's report before the Committee on Immigration and Naturalization, House of Representatives. March 8th, 1924, and Richard Washburn Child's "Battling the Criminal."

one of the most hopeful signs on the horizon of the American people today. This law, holding to July 1st, 1927, should be extended for at least a twenty-year period. But that part of the law which has to do with the non-quota immigrants should be modified so as to place the non-quota immigrants coming from Canada, Newfoundland, Mexico, Cuba, etc., under the quota laws that hold for European immigrants. All mental testing upon children of Spanish-Mexican descent has shown that the average intelligence of this group is even lower than the average intelligence of the Portuguese and Negro children among the groups used in this study. Yet Mexicans are flowing into the country, only a small proportion of whom are recorded. The Mexicans who have been recorded as entering the United States yearly since 1912 are—

1912	-----	23,238
1913	-----	11,926
1914	-----	14,614
1915	-----	12,340
1916	-----	18,425
1917	-----	17,869
1918	-----	18,524
1919	-----	29,819
1920	-----	52,361
1921	-----	30,758

We have records of more than 300,000 Mexicans who have entered the United States since 1895, and a very conservative estimate would place the number of Mexicans residing in the United States today at 600,000. In another decade there will be more than 1,000,000 persons of Mexican, (Spanish, Indian, Negro) descent in the United States if the immigration law is not extended (and enforced) to include Mexico.

Prior to 1890 the Canadian immigration to the United States was negligible. By 1900 the United States census

listed 1,181,255; in 1920 the number was almost 2,000,000. Today it is probably 2,500,000.

Our immigration from Canada is not a fair sample of the Canadian people, neither from the economic-social viewpoint nor from the racial. From the former perspective, we are getting the unemployed, the relatively unsuccessful, and the less intelligent of working-class people. From the latter approach the increase in the number of French Canadians is alarming. Whole New England villages and towns are filled with them. The average intelligence of the French Canadian group in our data approaches the level of the average negro intelligence. Furthermore, the innate emotional qualities of this quasi-national group is radically different from the older American stock.

The citizens of today are the trustees of the future. Humanitarian impulses for individuals who would like to come to the United States from Europe, Canada, Mexico or elsewhere must not blind us to the weal and welfare of our nation, and indirectly of the world. For by elevating the innate qualities of the future citizens of the United States and by increasing their chances for a high standard of life, we at least may be an example and a spur to other Natio-Racial groups. The American people have paid far too little attention to the effects that vast immigrations have had in history.

But "if the million people coming every year came not as peaceful travelers, but as an invading army, public opinion would be very different to what it is; and yet history shows that it has usually been the peaceful migrations and not the conquering armies which have undermined and changed the institutions of peoples."*

*Prescott Hall in *North American Review*, January 1912.

And is it not true as Professor Cummins notes, that we have already started to despotize our institutions through the necessity of trying to deal with great masses of citizens, with innately alien impulses, ideas and ideals? A German critic writes, "The immigration of the last decade (meaning 1903-1913) has increased the number of hands, but not the number of heads, in the United States."

Many of our immigrant groups are poor in qualities other than mentality. The physiognomy of certain Natio-Racial groups proclaims their aesthetic and temperamental inferiority. "*I have seen gatherings of the foreign-born in which narrow and sloping foreheads were the rule. There was much facial asymmetry. In every face there was something wrong—lips thick, mouth coarse, upper lip too long, cheek-bones too high, chin poorly formed, the bridge of the nose hollowed, the base of the nose tilted, or else the whole face prognathous. There were so many sugar-loaf heads, moon-faces, slit mouths, lantern jaws, and goose-bill noses that we might imagine a malicious jinn had amused himself by casting human beings in a set of skew-molds discarded by the Creator."

That many of the Natio-Racial or quasi-Natio-Racial groups are morally below the older American stock is as certain as a social fact can be. "Immigration* officials find that the different peoples are as day and night in point of veracity, and report vast troubles in extracting the truth from certain brunette nationalities."

Our immigration policy now and for the next two or three generations should be based primarily upon the still-present opportunity of making a Natio-Race and a Nation from a

*Edward A. Ross, *Century*, July, 1914.

hodge-podge of Natio-Races and a State. If it is necessary to make the United States immigration-proof in order to bring this about, the end in this case justifies the exclusion of all immigrants. A period of blood insularity is one of the requisites in Natio-Racial formation.

Even if our present immigration laws are extended so as to include Mexico, Cuba and Canada, and adequate means are provided for the execution and enforcement of these laws, the Natio-Racial status of the American people is still in a serious condition. For we have already in the country more than ten million negroes, and from twelve to fifteen million white people whose average intelligence approaches that of the negro. Only an internal national policy based on an adequate and varied eugenics program can remedy the situation that has been created in part by greed and in part by an unintelligent humanitarianism.

(a) *The Negro Problem*

This problem is becoming yearly more and more a question of how to deal with the increasing mulatto* rather than with the decreasing negro population. A negro remains a negro in the United States, "no matter what his color or the character of his ancestry, provided that at least one of his parents bore that name."* But within the negroes light pigmentation also means the basis for social distinctions. The mulatto or the negro with some white blood is fast replacing the negro. But there is a tendency for the negro-white mixture to become increasingly darker for, gradually spreading out, *as it is*, it is reaching all negroes. "To accomplish this, social selection must be exerted; it is to be found in the social distinction

*See "The Color Line," by Melville Herskovits, *American Mercury*, October, 1925.

carried by light color, plus the prevailing behavior with regard to the relative position of man and woman in our society. A woman wants a man who will take care of her, as the saying goes; the man wants a woman who will enhance his position and be something he can be proud of. There is thus a great competition among dark negro men for light-colored wives, and the light-colored women, on the other hand, prefer the dark men for husbands"* Thus a certain balance is being attained within the Negro-White group in the United States.

This mixed negro-white group has many of the attributes of a Natio-Race. It is certainly distinct from both the true African negro and from the white Natio-Race in this country. The present side-by-side policy of dealing with this group is unstable. Unless positive measures are adopted miscegenation will become a *fait accompli*; history demonstrates this in ancient Egypt, in the brilliant and dominating Portugal of the 14th to 17th centuries, and in the India of today.

Continued segregation or miscegenation—neither of these alternatives should be tolerated by the intelligent and energetic Americans of today. Another alternative, the formation of a Negro State,** fostered and protected by the United States and perhaps Great Britain, is the only solution of this problem, even though to many, at first thought, it may seem impossibly fantastic.

(b) *The Problems Arising from Twelve to Fifteen Millions of Borderline Mental Deficients in our Midst*

It would really be worse than miscegenation for millions of our citizens of many of our Natio-Racial groups to breed freely among themselves or to blend with others of our Natio-

*"The Color Line," cited previously.

**See "The Indestructible Union," by William McDougall.

Racial groups. Both of these are contingencies that will *naturally* occur unless intelligence and foresight intervene.

A national law, making birth-control teachings legitimate, is the first essential; a national yearly appropriation for the maintenance of birth-control clinics and for the spreading of birth-control information is a second requisite. Holland, facing a mere quantitative problem of too rapid population increase, solved her problem. It does not take credulity to suppose that forward-thrusting, dynamic America will be unable to meet this issue successfully.

(c) *The Need for a Revival of Family Life*

Leaving the more negative aspects of an eugenics program, we turn to a revival of family life—we can almost say a revival of family—for it has shrunk where it should be the largest to less than two children per family. A positive eugenics would seek the support of artists, dramatists, composers and poets, to completely reevaluate the mystery, joy, excellence and beauty of large families, of motherhood and fatherhood, the noble relationship of the family unit to personality on the one hand and to the nation on the other.

(d) *The Crossing and Blending of Certain Natio-Racial Groups*

The crossing of "Races" has been one of the most fertile causes in the production of the Natio-Races of Europe. No Natio-Race in Europe is of unmixed stock, and most of these are the results of such compound mixings that the Natio-Race of today is a real blend of the original Racial or sub-racial ingredients.

The results of the crossings of races cannot be judge *a priori*. From animal experimentations, and the history of race cross-

ings by the human species, no sharp-cut answer is possible. The result is largely, if not entirely, due to the Natio-Races or Races that cross.

The crossing of the Races of man, meaning by Races, the White, Yellow, Brown, Black and Red peoples, seems to result uniformly in bad, inferior offspring. The crossing* of Natio-Races may or may not be favorable but most historical examples of it show excellent new sub-races. As examples of the former we may cite the "blending* of the white, negro, and American stocks, which has been going on in South America for some centuries, seem to have resulted in a sub-race which up to the present time is inferior to the parent races; or at any rate to the white race. So the mulattoes of North America and the West Indies The Eurasians are commonly said to be a comparatively feeble people. The blend of the Caucasians with the yellow race is also generally of a poor type. Examples abound in Java of people of mixed Japanese and Dutch blood; and they are for the most part feeble specimens of humanity." We may add as apposite additional examples the Portuguese, French Canadians and Spanish-Mexicans.

"As regards mental constitution,* although we cannot directly observe and measure these disharmonies of composition, there seems good reason to believe that they exist. The soul of the crossbred, is, it would seem, apt to be the scene of perpetual conflict of inharmonious tendencies."

"The superiority of sub-races formed by the blending of allied stocks seems to fall principally under two heads: (1) a general vigor of constitution, (2) a greater variety and variability of innate mental qualities."

*"The Group Mind," page 333.

As examples of the latter one might point to several of the countries of Western Europe and Central Europe. The Scotch, English, Norwegians, Danes, French, and Germans are modern illustrations of the thesis that the blending of similar sub-races results in favorable types which are more energetic and variable than a group that has for centuries practised in-breeding.

The crossing and blending of Natio-Races in America is inevitable—proximity is the decisive factor. Even if a great measure of success were attained in the other portions of our program, nevertheless there would still remain many vigorous vital sub-races in America. All evidence seems to point out that the crossing of the more energetic and intelligent Natio-Racial groups would result in a new, vital, imaginative, capable and variable American Natio-Race.

The author has collected some material data on the results of the intermarriage of one of these groups with other European Natio-Races. When we recall the relatively few intermarriages that have taken place between Jew and non-Jew during the last century, the numbers and the greatness of some of the following personages, who have from one-quarter to three-quarters Jewish blood, is striking:

Rosa Bonheur; F. W. Taussig; Marées; Feuerbach; Basch; Cezanne; Christian Morgenstern; Bret Harte; Bayard Taylor; Maeterlinck; Bethman von Hollweg; Cardinal Newman; the Arnolds; Münsterberg; Metchnikoff; Bergson; Wagner; Sonnino; Weissman (biologist); Dernberg; Beudeman (German general); and a son, Beudeman, a prominent German painter; Paul von Heyse; Sir Frederick Cowen; Robert Browning; D'Annunzio*; Charles Kingsley; General Booth;

*It has been denied that the starred names are partly Jewish.

Rubenstein; Anatole France; Lord Milner; Leopold Amery of the British Admiralty; Ludendorff*; Montaigne; Kemal Pasha; Pulitzer; one of the greatest of South American novelists and poets, Jorge Isaacs; Sarah Bernhardt; Enver Pasha; Marcel Proust; Saint-Saens; Sir John Herschel; Paul Lindau; G. Ebers, the Egyptologist; Ludovic Halévy; Francis Turner Palgrave, the critic, and W. G. Palgrave, the traveler; Sir H. Drummond Wolff; Edwin Booth, the actor; Leon Gambetta; Sir John Millais, the painter; Sir Arthur Sullivan.

This list of persons engaged in diverse branches of mental activity is undoubtedly but a small proportion of great persons in the last century who have at least one grandparent of Jewish blood. The free intermarriage of the Jews in America would probably produce a stock containing a high variability of mental qualities, resulting in the birth of many men of exceptional capacities in varying directions.

And the free intermarriage of the Jews with other Natio-Racial groups would also help solve the so-called "Jewish problem." To many thoughtful persons it might seem impossible that the Jewish people, who have refused elsewhere as a people for centuries to intermarry, should reverse their age-long custom. Yet this reversal today is occurring in Russia,** a country where for generations the Jew resisted all modes of assimilation. Intermarriage between Jew and non-Jew in Russia today is occurring on a large scale both in the large cities and in the small towns and villages, within the old Jewish Pale, age-old seats of exclusiveness and of orthodoxy.

Mr. Hindus, in analyzing the disintegrating forces and the disrupting ideology that has brought about this very significant

*See footnote p. 402.

**"Is Russian Jewry Doomed?" by Maurice Hindus, *Menorah Journal*. October, 1925.

social and historical phenomenon, finds that the principal causes are the abolition of the Pale, the destruction of the old official anti-Semitism which wielded both a political and social force, the decay of *all* religions, and the new social philosophy which attempts to depart in all ways from the past. In other words, the Jew in Russia is disappearing through intermarriage because political and economical persecution, and especially social ostracism, no longer exist. It is probable that the Jew in America, without further immigration on a large scale, will freely intermarry if social ostracism is removed.

Nothing can stop the processes at work in the United States that are tending toward the formation of a Natio-Race from the many Natio-Races that at present compose it. But intelligent action can lead to the blending of certain of these sub-races, which would result in a desirable variability in the new stock. Variability is an essential condition for biological adaptation, for progress and for the production of great men in various fields. The intimate blending of some of the sub-races now living in America would produce many great men and geniuses, upon whom all progress in intellectual and moral standards ultimately depends. An American art, drama, music, and especially a new religion would arise as the creations of the genius of a new Natio-Race.

There are already evidences that a new sub-race is forming in America. It may be partly due, as Professor Ales Hrdlicka has shown for "old Americans," to changes in climate, occupation and possibly diet, changes which may or may not be heritable. The effect of the intimate blending of a number of European sub-races can result only in the production of a Natio-Race with a specific blend of unlike qualities that are heritable.

There is no doubt that some blendings of Natio-Races would

be more productive of new, energetic, varied and competent individuals than others, and with wise guidance and some foresight the present heterogeneous population of the United States could produce a Natio-Race of high capacity. One of the most scholarly and philosophical of modern anthropologists states: "If, in the history of the race as a whole, the Mediterranean and Caspian peoples have played a great part, that of the Alpines seems hardly less impressive; and there is not a little reason to believe that only where these types have met and mingled have the highest achievements been attained. Thus Babylonian civilization grew out of the blending of the supposedly Alpine Sumerian with the Mediterranean-Caspian Semitic peoples who seem long to have been in occupation of the Mesopotamian plain; in Greece, before the florescence of Hellenic culture, the early Mediterranean population was reinforced by the immigration of the probable Alpine Dorians (elsewhere said to have been probably under Caspian leadership), Rome rose to greatness only after the older Mediterranean-Caspian people of Latium had been half dominated by Alpines coming southward from the valley of the Po and the region where the older Etruscan culture had its centre. (But elsewhere we read the patrician aristocracy of Rome was Caspian in type) Lastly the marvelous development of modern European civilization has occurred in that region in which Alpine, Mediterranean, and Caspian have been more completely and evenly fused than elsewhere in the world. Is it perhaps more than mere coincidence that the reawakening of culture in Europe after the Dark Ages began at a time when, after a period of centuries during which wide shiftings of peoples had occurred, the new fusion of the elements had been begun? Is it mere chance that it was in the north of Italy, in Tuscany and the valley of the Po, where the influ-

ence of the Caspian-Mediterranean immigrants was strongest, that the Renaissance began; that in Germany it was in the south where the Baltic peoples had in large numbers blended with the older Alpines and Palae-Alpines, rather than in the north where such amalgamation was less clear, that the revival of culture had its start; that many of the forerunners and leaders of the Reformation, such as Huss, Luther, Zwingli, Calvin, all came from regions where the fusion of types must have been vigorously going on?"*

*The Racial History of Man, page 514, by Roland B. Dixon.

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